

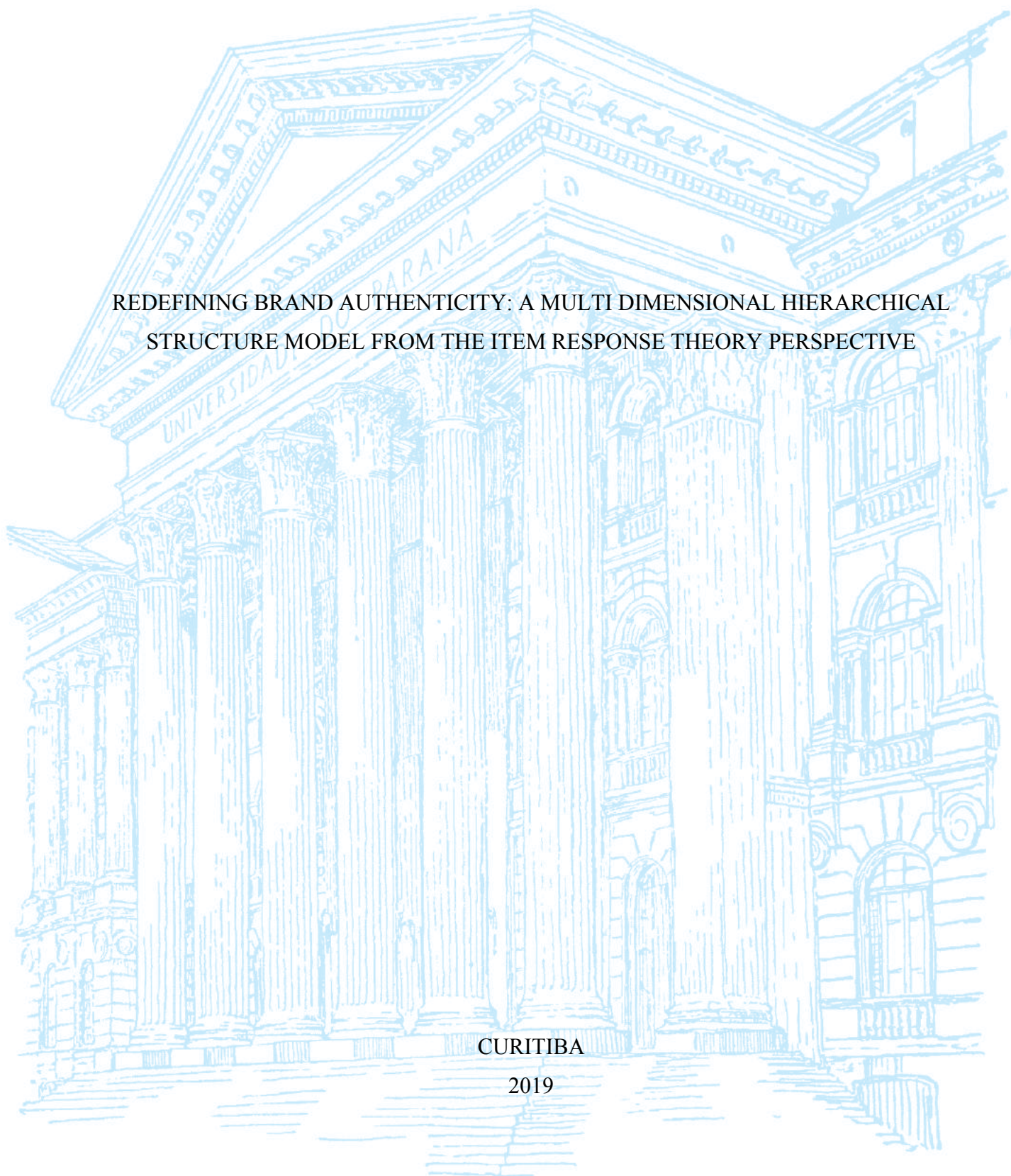
UNIVERSIDADE FEDERAL DO PARANÁ

MAIARA REGINA KOSOSKI

REDEFINING BRAND AUTHENTICITY: A MULTI DIMENSIONAL HIERARCHICAL
STRUCTURE MODEL FROM THE ITEM RESPONSE THEORY PERSPECTIVE

CURITIBA

2019



MAIARA REGINA KOSOSKI

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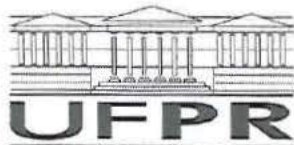
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RESUMO

A autenticidade da marca representa um desafio para acadêmicos e gerentes que precisam seguir a fluidez e a mudança dos mercados. À medida que marcas evoluem ao longo do tempo, é imperativo mantê-la contínua e relevante, de forma a preservar seu *core*. Entender um conceito requer investigar suas fontes históricas, a partir de diversas esferas de conhecimento, à medida que elas contribuem para o seu desenvolvimento, ao cooperar individualmente para a construção de um pensamento robusto. O uso excessivo do termo "autenticidade de marca" está a minar seu complexo significado. Para desfazer essa concepção equivocada, propõe-se um conceito de autenticidade de marca, assim como uma medida que capta a estrutura hierárquica de suas dimensões formativas, por meio da Teoria de Resposta ao Item. Assim, a autenticidade da marca é a relação entre a construção dos atributos da marca, que vêm do seu núcleo e são ditados pelo fornecedor, e a percepção do indivíduo sobre esses atributos, indiscutivelmente refletidos (*sine qua non*), por meio do compromisso com a qualidade, continuidade, credibilidade, design, herança, integridade e simbolismo. A autenticidade da marca é necessariamente composta por dois termos: autenticidade proeminente (fornecedor) e autenticidade percebida (indivíduos que avaliam a marca). O uso do IRT é novo no contexto de autenticidade da marca. Trabalhos anteriores deram enfoque à técnicas multivariadas, uma vez que, relativamente; satisfazem as necessidades mais importantes de pesquisa de marketing, como a capacidade de analisar dados complexos. No entanto, uma preocupação é levantada quanto à confiabilidade de tais estudos que está, diretamente, associada à validação dos instrumentos de mensuração. O modelo IRT foi aplicado aos dados de uma pesquisa online, coletados no Brasil e nos Estados Unidos. Os resultados mostram uma escala multidimensional que reflete o modelo de estrutura hierárquica de autenticidade de marca, composto por quatorze dimensões; sete globais e sete específicas. As dimensões globais são aquelas relacionadas aos significados semânticos de autenticidade e ocupam a linha de base do modelo de estrutura hierárquica, uma vez que possuem os significados mais puros. Dimensões específicas são as que "flutuam" em torno do núcleo da autenticidade. A partir daí, as principais contribuições contam com a proposta de um novo conceito de autenticidade da marca, de uma vez por todas, e a definição da escala hierárquica de autenticidade da marca.

Palavras-chave: Autenticidade da marca. Estrutura hierárquica de dimensões. Teoria da Resposta ao Item. Multidimensionalidade. Gestão de marcas.

ABSTRACT

Brand authenticity represents a challenge for academics and managers who need to follow markets' fluidity and pamper the brand as it evolves over time, by keeping it ongoing and relevant, while preserving its main core. Understanding a concept requires investigating its historical sources, from diverse spheres of knowledge as they contribute to its development by cooperating individually to the construction of a robust rationale. The overuse of the term 'brand authenticity' is undermining its all-embracing meaning. In order to undo this misconception, a redefined brand authenticity concept is proposed, and so is a measurement that captures the hierarchical structure of its entire formative dimensions, by means of the Item Response Theory. Thus, brand authenticity is the relationship between the construction of brand attributes, which come from its core and are dictated by its supplier, and the individual's perception of those attributes, which are indisputably reflected (*sine qua non*), through commitment to quality, continuity, credibility, design, heritage, integrity and symbolism. Brand authenticity is necessarily composed by two terms: prominent authenticity (vendor) and perceived authenticity (individuals that assess the brand). The use of the IRT is novel in the brand authenticity context. Previous works have focused on multivariate techniques, since they, relatively; satisfy the most important marketing research needs, such as the ability to analyze complex data. However, a concern is raised regarding the reliability of such studies that is directly associated with the validation of the measurement instruments. The IRT model was applied to the data of an online survey, collected in Brazil and The United States. The results show a multidimensional scale that reflects the brand authenticity hierarchical structure model made of fourteen dimensions; seven global and seven specific. Global dimensions are the ones related to authenticity semantic meanings and occupy the baseline of the hierarchical structure model once they carry the purest meanings. Specific dimensions are the ones of that 'float' around authenticity's core. Thereafter, the main contributions rely on the proposal of a new brand authenticity concept, for once and for all, and the definition of the brand authenticity hierarchical model.

Keywords: Brand authenticity. Hierarchical structure of dimensions. Item Response Theory. Multidimensionality. Brand management.

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1 INTRODUCTION

Brand authenticity represents a challenge for academics and managers who need to follow markets' fluidity and pamper the brand as it evolves over time, by keeping it ongoing and relevant, while preserving its main core (Beverland, 2005; Fournier, 1998). As the authenticity of the brand forms an increasingly substantial part of the value of the company's intangible assets, managers should understand its concept and relevance for brand growth opportunities (Beverland, 2008; Brown, Kozinets & Sherry, 2003; Grayson & Martinec, 2004; Guèvremont, 2018; Newman & Dhar, 2014; Spiggle, Nguyen, & Caravella, 2012).

The overuse of the term 'brand authenticity', in a generic and tautological manner, is undermining its all-embracing meaning (Becker, Wiegand & Reinartz, 2019). In order to undo this misconception, a redefined brand authenticity concept is proposed, and so is a measurement that captures the hierarchical structure of its entire formative dimensions, by means of the Item Response Theory (IRT; also known as the Latent Trait Theory). Once the dimensions are precisely set, in order of importance, for building an authentic brand, managers are able to specify which of them are paramount for targeted communications (Becker et al., 2019).

The importance of such findings relies on the fact that brand authenticity definitions, developed until now (Akbar & Wymer, 2017; Bruhn, Schoenmüller, Schäfer & Heinrich, 2012; Eggers, O'Dwyer, Kraus, Vallaster, & Guildenberg, 2013; Fritz, Schoenmüller & Bruhn, 2017; Lewis & Bridger, 2000; Morhart, Malär, Guèvremont, Girardin & Grohmann, 2014; Napoli, Dickinson, Beverland, & Farrelly, 2010; Napoli, Dickinson & Beverland, 2016) do not capture the complexity of the term, neither conceptually nor empirically. As affirmed by Becker and colleagues (2019): "Despite widespread agreement about authenticity's importance as a concept, no commonly accepted definition exists." (Becker et al., 2019, p. 25). It's even declared (Reisinger & Steiner, 2006) that, due to its breadth, authenticity should be abandoned. But how can one desert a term in means of its magnitude once that is the purpose of Science?

In the realm of science, the reputed scholar Thomas Kuhn has called such complexity "scientific paradigm" in 1962. He defined 'paradigm' as a particular set of ideas to which society subscribes at a specific time in a world that is increasingly dynamical and uncertain (Kuhn, 1962). Under this perspective, consumers seek for authentic brands in order to fulfill

their urges in the artificial nature of current life, by shifting away from everything that is fake (Cohen, 1988; Gilmore & Pine, 2007; Leigh, Peters, & Shelton, 2006; Morhart et al., 2015; Napoli et al., 2014). Guèvremont firms this thought in 2018 as she affirms that: “Managers need to understand thoroughly the nature and complexity of authenticity and the relevance of the latter to their brand.” (Guèvremont, 2018, p. 514).

Therefore, the idea of this dissertation came up: redefining brand authenticity and unveiling its formative hierarchical structure, by making use of a new methodological approach, the IRT model.

Once the terms suggested, until now, are vague, lack consistency and clarity, they do not add up to the development of Marketing and Science, nor enrich brand management. The lack of consensus regarding the concept of brand authenticity results in the development of generic measures that do not contemplate its true scope and so, do not cause reliability both in academia and market. Limited definitions, and in consequence measurements, generate the term fragmentation and do not contribute to the advance of Science (Akbar & Wymer, 2017).

In the postmodern era, consumers face a great amount of choices; the way in which brands connect with them can generate different benefits (financial, psychological, social), both for the consumer and for the supplier, as the creation of demand and profit, for instance (Becker et al., 2019; Fournier, 2008). Once individuals have a limited cognitive capacity of processing information, constructs related to brands such as equity, image, personality, love (Aaker, 1991; Ahuvia & Bagozzi, 2012; Kapferer, 2003; Kotler & Keller, 2006) are able to awaken consumers’ emotions and facilitate their decisions (Becker et al., 2019; Holt, 2002; Schallehn, Burmann, & Riley, 2014).

Brands are largely responsible for consumer choices in any sphere of consumption, whether it is services or products. Many efforts are put into their construction to meet a desired position in the minds and hearts of individuals. It is known (Becker et al., 2019; Brown et al., 2003; Guèvremont & Grohmann, 2016; Fournier, 2008; Napoli et al., 2016) that relationships between consumers and authentic brands generate better satisfaction to the individual and better financial performance to the supplier.

Even if brand authenticity is a recurring theme in the academic and managerial arenas, there is no adequate definition of it; the ones proposed do not represent the complexity it deserves (Akbar & Wymer, 2017; Authentic Brand Index, 2008; Becker et al., 2019; Grayson & Martinec, 2004; Morhart et al., 2014; Napoli et al., 2014; Rose & Wood, 2005; Schallehn et

al., 2014). The notions and measurements are usually originated in the generic sense of authenticity: original, genuine, real (Beverland & Farrelly, 2010; Bruhn et al., 2012; Kososki, 2015; Morhart et al., 2014; Napoli et al., 2014; Newman & Dhar, 2014). There are still “some conceptual blind spots” regarding brand authenticity (Athwal & Harris, 2018, p. 2). So, there is no purpose in studying one more brand construct if it does not enrich the body of knowledge and does not capture its broad structure.

Hence, after a clear defined conceit, which hitherto varies between the many areas of human knowledge, inferences regarding its correct application can be done. Comprehending authenticity paths, to the current days, will extend the theory on branding (Athwal & Harris, 2018; Mikes & Morhart, 2017).

Consumers may feel more satisfied, self-fulfilled and brands will have better financial performance (Brown, Kozinets & Sherry, 2003; Guèvremont & Grohmann, 2016; Napoli, Dickinson & Beverland, 2016). Hence, it is imperative to understand the nature of authenticity to analyze its formative elements and to perceive how they contribute to the birth of authenticity in Marketing. Consequently, it will be possible to comprehend the relationship between consumer and authentic brands (Akbar & Wymer, 2017; Morhart et al., 2014).

As follows, the initial step of this dissertation was to seek the roots of the term authenticity in the various domains of knowledge. To say that authenticity is something genuine, real and socially constructed, as many authors say (Akbar & Wymer, 2017; Bruhn et al., 2012; Fritz et al., 2017; Lewis & Bridger, 2000; Morhart et al., 2014; Napoli et al., 2016) explains only part of the problem. There is always something that is essential, peculiar, beyond what is socially agreed, beyond what one sees. It is always very difficult to define the boundaries between what one seeks because it is conventional (what one desires because it is a socially or traditionally introjected standard) and what one seeks because it is innate and proper to one's nature (as the patterns of attention, for example, because one directs its attention to some things and not others, one is interested in some things and not others) (Watson, 1913; 1916; 1924). As Guignon (2004) affirmed: “The concept of authenticity is defined by privileging the inner over the outer.” (Guignon, 2004, p. 81).

Thereafter, the main contributions of this dissertation are: 1. The conceptualization of an all-encompassing brand authenticity term and 2. The establishment of its hierarchical structure, through the Item Response Theory model.

The use of the IRT is novel in the brand authenticity context. Previous measurement

works (Akbar & Wymer, 2017; Bruhn et al., 2012; Fritz et al., 2017; Ilic & Webster, 2016; Kososki, 2015; Morhart et al., 2014; Napoli et al., 2014; Spiggle et al., 2012) have focused on multivariate techniques, since they, relatively; satisfy the most important marketing research needs, such as the ability to analyze complex data (De Jong, Steenkamp, Fox & Baumgartner, 2008; Pereira & Pinto, 2011).

However, a concern is raised regarding the reliability of such studies (Akbar & Wymer, 2017; Bruhn et al., 2012; Fritz et al., 2017; Ilic & Webster, 2016; Kososki, 2015; Morhart et al., 2014; Napoli et al., 2014; Spiggle et al., 2012) that is directly associated with the validation of the questionnaire or scale used (measurement instruments). It is expected that, when completing a questionnaire, respondents assimilate and respond to it based on the meaning of the items to which they are responding. However, subjects are influenced by irrelevant factors, such as the classification scales belonging to an item (Baumgartner & Steenkamp, 2001; Cronbach, 1946; Lentz, 1938).

It is also known that: “Valid measurement is a cornerstone of marketing as a science” (De Jong et al., 2008, p. 104). So, the validation of a scale should be reliable, which is analyzed through its internal consistency; carry a detailed analysis of each item regarding its correlation with each scale and ensure validity, i.e., the ability of an item to measure what it intends to measure. In sum, the instrument must evidence reliability, detailed analysis of the item and validity (Cronbach, 1951; Nunnally, 1967; Pasquali, 1997; Pereira & Pinto, 2011).

Most of the measurements, in marketing, had its origin in Classical Psychometrics, precisely, in Classical Theory of Tests (CTT). This theory considers the measurement instrument as a whole (total scores), which depends intrinsically on the object measured, that is, the tests are dependent on the composing items (Lou, 2015; Pereira & Pinto, 2011). On this wise, the first critic resides: marketing scholars, who have developed brand authenticity scales, use the “summed scale”, i.e., the construct score is, merely, the measurement of the items that compound the scale. Furthermore, there is no concerning that the items may have different weights and, so, contribute in a differentiated manner for the construct’s estimation (DeVellis, 2006; Grégoire & Laveault, 2002; Pasquali, 1997; Pasquali & Primi, 2003; Pereira & Pinto, 2011).

To this extent, the IRT method provides indicators, through its hierarchical items model, that allow capturing a construct’s common and specific dimensions, varying between brands, which permit the distinction of an authentic and an inauthentic brand. That is, each

brand of a product category corresponds to an item in a test or a measurement scale. Brand authenticity is assessed by a response from a consumer, equivalent to an answer from a testee; therefore, IRT is applicable in brand authenticity research (Lou, 2015; Pasquali, 2003; Pereira & Pinto, 2011).

1.1 RESEARCH PROBLEM

What is the hierarchical structure of brand authenticity?

1.2 RESEARCH GOALS

The main goal of this dissertation is to define brand authenticity hierarchical structure, and the specific goals are:

- 1) To define a new brand authenticity concept;
- 2) To develop a new brand authenticity measurement that provides indicators able to capture common and specific dimensions in the hierarchical structure model of brand authenticity;
- 3) To establish the most pertinent dimensions of brand authenticity through the Item Response Theory Model;
- 4) To propose an overall measurement of brand authenticity and a reduced scale;
- 5) To demonstrate the impact of brand authenticity on word-of-mouth and purchase intention.

1.3 THEORETICAL IMPLICATIONS

Napoli et al. (2014) mention that: “we expect broader umbrella themes to emerge that capture the essential elements underpinning consumers’ authenticity evaluations” (Napoli et al., 2014, p.1091). Even though there is a lot of attention given to brand authenticity, major studies are usually descriptive and limited regarding the use of variables and pay attention to specific products or categories (Ewing et al., 2005; Fritz et al., 2017).

A term when lacks adequate conceptual meaning refrains theory development and results in poor quality research (Akbar & Wymer, 2017; MacKenzie, 2003; Stern et al., 2001).

Thus, in face of a poorly defined construct, the relationship construct-measure cannot be accurately represented as Akbar & Wymer (2017) elucidated: “Brand authenticity still requires a composite unitary meaning. Unifying inconsistent definitions is necessary to enable theory development pertaining to this construct.” (Akbar & Wymer, 2017, p. 29). Grayson and Martinec (2004) suggest that: “consumer researchers have an opportunity to enhance our understanding of this important cultural concept and to contribute to an active and ongoing research effort in the social sciences.” (Grayson & Martinec, 2004, p. 296).

So, it is paramount to define an all-encompassing brand authenticity concept as well as an steady measure. A suitable conceptual definition decreases the probability that its measures will be impaired (Podsakoff; MacKenzie & Podsakoff, 2016). For this, a novel method is implied in the construct operationalization: the IRT model. The use of the Item Response Theory model is unprecedented for brand authenticity scales, which fills a gap of interest in academia: marketing scales are broadly used but carry a problem; their validity (Birnbbaum, 1968; Cronbach, 1951; Lou, 2015; Nunnally, 1967). As for this, a few points are highlighted:

First, the model is set to discern brands and to capture their differences, truthfully, by means of its set of global and specific dimensions. Second, the IRT model quantifies the involved dimensions and increases its validity and reproducibility. Third, it provides a complementary framework for researchers to understand and measure brand authenticity beyond previously used approaches. Fourth, because it is a new and comprehensive perspective, it offers opportunities to explore diverse approaches extending the body of knowledge (Lou, 2015; Pereira & Pinto, 2011; Rusch, Lowry, Mair, & Treiblmaier, 2017). Fifth, the Item Response Theory allows the independence of the measuring instrument in relation to its object by granting diverse items to be differentially useful for measuring (Pasquali, 2003). Sixth, the model allows, even for non-representative samples, the estimation of correct scaling parameters (De Jong et al., 2007, 2008; Pereira & Pinto, 2011).

Thus, by explicitly separating the parameters of brand authenticity, for consumers, dimensions and items, this dissertation fills the gap on the search for a complete conceit and measurement. The researchers, through the scales elaborated until now (Akbar & Wymer, 2017; Bruhn et al., 2012; Fritz et al., 2017; Ilic & Webster, 2016; Kososki, 2015; Morhart et al., 2014; Napoli et al., 2014; Spiggle et al., 2012) seek the "true" number of authenticity variables. However, they only observe scores. Such scores confuse the actual ones with multiple external sources of variation, such as the different response patterns of consumers.

Some of them have a lower or higher probability of using extreme response categories (such as "1s" and "5s" on a 5-points Likert scale). This dissertation not only conceptually separates the true value from other sources of variance, but also introduces the Item Response Theory for brand authenticity - a methodology that allows such separation (Lou, 2015; Pereira & Pinto, 2011; Rusch et al., 2017; Velikova; Howell & Dodd, 2015).

Marketing science has been advancing its body of knowledge by measuring latent unobservable constructs by the use of empirical methods. Although, the CTT theories, mostly used till now, do not represent, necessarily, the empirical reality, and still are the predominant measurement theories in marketing (Moussa, 2016; Nunnally, 1967). As for this, the IRT method provides high quality for multi item measurements as well as eliminates biases (Baumgartner & Steenkamp, 2001; De Jong et al., 2007; Moussa, 2016; Salzberger & Koller, 2013; Singh, 2004; Wang & Finn, 2014).

To sum up, as affirmed by Grayson and Martinec (2004): "In light of authenticity's long-standing, persistent, and contemporary marketplace appeal, it is a potentially significant and interesting topic for consumer researchers." (Grayson & Martinec, 2004, p. 289). Also, authenticity was under the research priorities, from 2016 to 2018, in the Marketing Science Institute website (https://www.msi.org/uploads/articles/MSI_RP16-18.pdf) by proposing research questions such as: "What is the role of trust and authenticity in digital environments?" and "How can a brand be real and authentic?".

1.4 MANAGERIAL IMPLICATIONS

The literature highlights how the marketing of authentic brands is differentiates from others. Thus, for managers it will be an instrument to measure the authenticity of its brand since it is easy to implement. For small and medium enterprises, as well as for novice brands, consumers might describe the brand as authentic, through marketing efforts and lead to the company growth (Eggers et al., 2013; Guèvremont, 2018).

Since 2012, one of the most worldwide-renewed consultancy's firms, Cohn & Wolfe, has been researching authenticity as a guiding principle and business strategy. Each year, their consistent results, from data collected all over the world, show the strategic power of authenticity and its unique opportunity to build reputation and to change, positively, consumer expectations. Even if there is a renowned consultancy group, Cohn & Wolfe, which strongly

believes in the power of brand authenticity, such studies are not easily accessed to small or medium firms as their focus is on large and multinational brands (Berthon, Ewing & Napoli, 2008). Hence, this work represents an accessible instrument for measurement and implementation of marketing efforts into authenticity in order to build a stronger firm.

Brand authenticity has become an important construct for managers who want to develop strong brands (Alexander, 2009). Maintaining the sincerity of a brand over the years, and its promises, is one of the biggest challenges encountered by managers these days (Athwal & Harris, 2018). It is also said that authenticity indicates means of quality and differentiation for consumers, once it is a target dimension in marketing management, so, perceived brand authenticity can be pivotal for mature categories of products (Dwivedi & McDonald, 2018; Fritz et al., 2017).

Product and service brands, worldwide, have been using communicating appeals to express their authenticity. Kappa®, the Italian sportswear's company, claims to be the “authentic sportswear brand since 1967”; the American apparel firm Wrangler® is said to be “authentic since 1947”; the American restaurant Rosa Mexicano® - “serving authentic Mexican cuisine since 1984”. Also, brands such as Patagonia®, Lego® and M&Ms® have in their mission statement messages that carry dimensions of brand authenticity such as: nostalgia, design, origin, among others, to inform their customers, as much as they can, about everything the company does, providing commitments concerning transparency. The Brazilian clothing brand Hering®¹ shows the following statement on its official website:

“Somos casuais em nossa essência e autênticos sempre. Minha moda é leve, casual, bonita, verdadeira. Sou o Básico do Brasil. O conforto, a qualidade com tradição e atitude. Original porque tenho procedência, porque sou única e porque tenho meu produto icônico, que te acompanha desde sempre. Sou aquela camiseta que fez história. Pronta pra ser vestida e vivida. Minha essência é ser simples, descomplicada. A roupa que te mostra que não é só pela roupa. Que faz você se sentir você mesmo. Que Veste a Vida.” (www.hering.com.br)

¹ The information mentioned was retrieved from the official brands' websites.

Not for nothing, the companies mentioned above are the most valuable brands in its country of origin, according to Interbrand “Best Global Brands 2018 Rankings” (<https://www.interbrand.com/best-brands/best-global-brands/2018/ranking/>). The few examples reaffirm the importance that brand authenticity has on firms’ performance and, also, on brand equity (Fournier, 1998; Ilic & Webster, 2014; Keller, 2008; Park et al., 2010).

Being able to understand entirely the concept of brand authenticity, as well as its measurements, can provide managers with relevant content to developing brand strategies and assertive communication messages, which will strengthen the consumer relationship. Thus, communicating brand authenticity must complement the brand marketing strategy in order to enhance the clarity of brand positioning and cope with consumers to what is real and genuine (Cohen, 1988; Dwivedi & McDonald, 2018; Fritz et al., 2017; Leigh et al., 2006; Guèvremont, 2018).

Brand authenticity is an imperative strategy seen as a differentiation factor that will shape marketing environment in the long term (Dwivedi & McDonald, 2018). Also, the method implied, the IRT model, increases the objectivity and managerial relevance of brand authenticity. Managers can use this model to obtain estimates of brand authenticity that can be compared to the results of other, branding measurements, such financial approaches. For managers who are interested in the relationship between brand authenticity and other strategic variables, this dissertation provides unbiased estimates that have high reliability and validity when measuring brand-related variables.

Thus, the current research provides a tool for brand portfolio managers to measure the authenticity of their brands as well as having useful insights into the comparative strength of brands (Lou, 2015; Pereira & Pinto, 2011; Rusch et al., 2017; Velikova et al., 2015).

2 CONCEPTUAL BACKGROUND

This dissertation delves into the deep concept of authenticity in the many areas of knowledge to comprehend how authenticity is brought to marketing under the ‘brand authenticity’ term. The term is found in the marketing literature consequent of different conceptual perspectives where it ranges from a broader view regarding its generic definition to a more operational view where it includes its measurements. The next sections are intended to review the literature directed by the marketing lens and the approaches that contribute to the origin of authenticity in the brand management studies.

2.1 THE ROOTS OF AUTHENTICITY

Understanding a concept requires investigating its historical sources, from diverse spheres of knowledge, as much as Philosophy, Psychology, Art, among others, once they contribute to its genesis as they cooperate individually to the construction of a robust rationale (Akbar & Wymer, 2017; Bruhn et al., 2012; Eggers et al., 2013; Fritz et al., 2017; Lewis & Bridger, 2000; Morhart et al., 2014; Napoli et al., 2010; Napoli et al., 2016).

Authenticity is more than a mere set of attributes. It is developed under three spheres: the objective (material), the subjective (individual), the collective (social). The material consists of product materials and craftsmanship, functionality, and performance. The subjective dimension relates to the consumers personal hedonic values of a brand. The collective element is the value a brand signals to others and the value of that signal to the individual (Berthon et al., 2009; Ko & al., 2017). The process of evolution of the concept of brand authenticity is due to the intertwine between areas. Initially, a concept that arises in Philosophy, in relation to existentialism brings to the brand management the concept of individual assessments into a brand, through its individual interpretation (Heidegger, 1962; Kernis & Goldman, 2006; Sartre, 1943; Taylor, 1992). Furthermore, from the objectivist theory point of view in which an object is evaluated for its physical and tangible attributes, in the case of products and the experiences provoked by its use (Kant, 2001, 2003; Popper, 1975). Moreover, from Psychology, it carries theories of self-determinism (Deci & Ryan, 2002).

So, it can be said that because the concept involves these elements it is perceived that there is no way to study such a discipline by restricting itself to the content of Marketing itself. In order to understand the dynamics of authenticity, one must draw on varied sources of knowledge. The very nature of the theme that involves psychological and philosophical aspects demands a multidisciplinary approach. Understanding what makes a particular brand to be chosen, among other references, what composes the style of a certain person, what the consumer wants to express when using a particular product, is something that obliges individuals to look for answers in disciplines that delve into the behavior and structure of the human psyche. There is an objective aspect that makes a particular brand acquire authenticity, such as, for example, a certain brand of sporting goods that creates a product that improves certain performance of the athlete. This may leverage the brand, but it is not enough to make it authentic. The brand becomes authentic because it symbolizes some value to the consumer and at the moment it is consumed it also symbolizes something for the consumer himself and also for the others who see him consuming. Authenticity then involves phenomena that go beyond the scope of Marketing.

Along these lines, brand authenticity is seen through different perspectives according to each author. From the objectivist approach, brand authenticity is seen as an entity, objectively measurable, assessed by experts (Beverland et al., 2008; Bruhn et al., 2012; Grayson & Martinec, 2004; Morhart et al., 2015; Trilling, 1972). From the constructivist, brand authenticity is seen as a projection onto an entity, according to individual's beliefs, experiences and expectations; it is a socially constructed phenomenon (Akbar & Wymer, 2017; Carroll & Wheaton, 2009; Dwivedi & McDonald, 2018; Grayson & Martinec, 2004; Morhart et al., 2015; Napoli et al., 2016; Wang, 1999). From the existentialist lens, brand authenticity is seen as an inner entity, according to with lies within the inner self of an individual – the self is independent and genuine. Individuals make their very own choices based on values to the detriment of enforced norms of society (Fritz et al., 2017; Golomb, 1995; Guignon, 2004; Heidegger, 1962; Kernis & Goldman, 2006; Morhart et al., 2015, Sartre, 1943; Taylor, 1992). It is also accepted that the perspectives intertwine, once authenticity is built under different disciplines (Bruhn et al., 2012; Fritz et al., 2017; Grayson & Martinec, 2004; Morhart et al., 2015; Napoli et al., 2014). This is the point of view under this dissertation is built.

2.2 PHILOSOPHY

One of the main contributors to the brand authenticity concept is, undoubtedly, Philosophy. The concept of authenticity, under the lens of philosophy, has a multifaceted characteristic; however, its core lies in issues related to identity. Historical and philosophical matters emerge in conjunction with metaphysics, epistemology, and morality, and affect the social, political, and economic perspectives of contemporary society (Guignon & Varga, 2016).

The emergence of the search for authenticity, as it is treated nowadays by postmodern society, received a great contribution from Rousseau through his masterpiece entitled *The New Heloise* (1997 [1761]). The work "popularized" authenticity while it was treated as a ubiquitous ideal that society seeks. Intellectuals of the eighteenth and nineteenth centuries resisted the artistic codes and the way of life of the time, because of the searching for authenticity. This is brought to the actual society where individuals, in the context of consumption, face many choices on a daily basis and choose brands that are authentic (Gilmore & Pine, 2007). Kierkegaard (1962 [1846]) criticizes modern society regarding its massification. According to the author, inauthenticity is caused by the despair of the individual, by his lack of spirit and denial of being. Also is product massification criticized by marketing scholars (Alexander, 2009; Beverland, 2005) and the relevance of brand authenticity.

In another sense, Heidegger (1962 [1927]) believes that the relation that one obtains between what one is, at any moment, and what one can be, lies in a realm of possibilities. That is, throughout life, the identities of human beings are always in question: there are always projections for the future, without thinking about the present about who we really are. Charles Taylor (1992), in speaking about human identity, mentions "strong evaluations" and "constitutive assets." "Constitutive goods" contrast sharply with material goods, or with goods emanating from some (physical) necessity, inasmuch as simple preferences, which are not identifiable, but are instead the foundations of our identity. "Strong evaluations" are characterized by the fact that they are not negotiable and cannot be reduced to a simple whim. They are not related to material well being but to the very being of us. These assessments refer to everything that provides a reason for living and dying, meaning they have strong influence on values that are conceived as inherently well.

In this sense, Napoli et al., (2016) believe that authenticity varies through a continuum, i.e., novice brands are set in a low authenticity context, addressed in the germination strategy as they name it. The novice brands are able to move up to a different stage in the authenticity continuum called 'cultivation'. The cultivation phase is where vendors are able to connect with consumers' internal needs through self-identification. The next stages are consolidation and preservation. Consolidation is where the status of a certain brand resides in the consumers' minds and is not immediately shown, it takes time to built. The preservation, the top level of the continuum is when vendors keep on promises and value to consumers (Napoli et al., 2016).

In [1940], José Ortega y Gasset's lecture, in Buenos Aires, entitled: "La razón histórica" he confessed that the aspects of the authenticity of life were his oldest thought and also the most consistent. For Ortega y Gasset (1931), authenticity is not restricted only to human life - reality itself is inauthentic, since it is always the product of the activity and the work of men. Also, it attributes the universal counterfeit of human life to the lack of historical authenticity. Once consumers have a clear connection with a brand, they are able to make a correct decision (Napoli et al., 2014; Beverland et al., 2008).

In his speech at the National Policy Institute in Washington, in 2013, Alain de Benoist mentioned a passage, about time, from Saint Augustine in "Confessions" - "What is the time? If no one asks me, I know it; but if you ask me, and I want to explain, I do not know anything else." (St. Augustine, 1964, XI, p.14, 17.) From this passage, he made an analogy with the identity in which he says that it is seen as a problem. Benoist (2013) believes that identity is taken for granted, as something natural, something given. However, a completely different situation arises when we ask: "Who am I?" In the remainder of his speech, the philosopher comments on the difficulty in conceptualizing identity since it emerges as a problem at a time when it is no longer taken for granted. In this sense, identity is a modern subject. In previous and traditional societies, no one would ever question their identity, for it was regarded as granted by all, as self-evident (Benoist, 2013).

In modern, or postmodern society, identity is threatened or even disappeared. Thus, the questions about authenticity begin. The points of reference of individuals have disappeared and almost everyone does not really know the meaning of life. Modernity has been a vehicle for an evolution that directly impairs all identities and, consequently, authenticity. This evolution is mainly due to the rise of individualism (Benoist, 2013). If one

seeks authenticity for one's own esteem, then one is only ego-based and considered individualistic. On the other hand, if it is accompanied by the evaluation of the other, it can be a purer goal (Yacobi, 2017). Thus, accepting or rejecting brands is a self-referential act or a collective expression (Arnould & Price, 2000; Napoli et al. 2014).

Identity, individual or collective, cannot be reduced to only one dimension in the lives of individuals and peoples. Identity is never one-dimensional; is multidimensional. Our identity combines inherited components with the ones we choose ourselves. We have a national identity, a linguistic identity, a political identity, a cultural identity, an ethnic identity, a sexual identity, and a professional identity. All these different aspects define our objective identity. But experience teaches us that in general we do not attribute any value to them. This means that identity also carries a subjective dimension. In general, we define ourselves by referring to the aspect of our identity that appears as the most important and most critical to us, ignoring other aspects of identity. Identity is inseparable from what it matters most to us. It expresses a part of ourselves that we value most and on which we depend to build ourselves (Benoist, 2013). Similarly, consumers use a combination of items to assess a brand, i.e., there are multiple pathways to establish an authentic brand (Napoli et al., 2014).

2.3 PSYCHOLOGY

Psychology, as well as Philosophy, has a great impact in the brand authenticity composition. Under the eyes of psychology, what does it mean to be authentic? Two great perspectives arise from theories of personality. The first is contextualized from the Big-Five theory (McCrae & John, 1992), which addresses the five main traits of the individual. The second is based on organicist and existentialist theories (Rogers, 1963; Ryan 1993).

The Big-Five trait theory disregards the social context in the influence of personality and works with five factors of the human dimension: extraversion, neuroticism, agreeableness, conscientiousness and openness to experience. Already, for existentialist theories, authenticity refers to "behavior that is phenomenally experienced as self-authorship" (Sheldon et al., 1997, p.1381).

From the socio-psychological perspective, the consumer is seen as authentic when it reaches its self-realization and self-definition, that is, when its behaviors reflect its true essence (Van Leeuwen, 2001). People feel more authentic when they act in a way to have free

will for choice and self-expression (Sheldon et al., 1997). The individual abandons any institutionalization of the environment and is led by its identity, has a unique and distinctive style and does not imitate anyone (Fine, 2003; Guignon, 2004; Schallehn et al., 2014; Van Leeuwen, 2001). For Deci and Ryan (2002) the authenticity of an individual is directly related to their legitimate behavior towards others. From that thought, Kernis and Goldman (2006) developed a concept of authenticity based on four different dimensions: awareness (awareness of their desires and feelings), unbiased processing, behavior (behave according to their own values and not act in a false way to obtain rewards or not to have punishment) and relational orientation (close open relationships, truthful, without distorting or exaggerating about any situation).

In this sense, authenticity is defined by Schallehn et al., (2014) as the degree to which an individual is faithful to his or her identity in the face of external pressures. In addition, authentic individuals give importance to the results of their actions, that is, their promises must reflect the attributes of their personal identity and thus provoke their self-realization (Ferrara, 1998; Schallehn et al., 2014). Authentic brands contribute to consumer satisfaction, whether motivated by the social context or simply at the individual level (Guèvremont & Grohmann, 2016).

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Yet, under the guise of psychology, brand authenticity is found in studies about celebrities (Ilic & Webster, 2016; Moulard et al., 2015; Peterson, 2005). In this case, authenticity is said to be the perception that a celebrity brings to consumers, that is, if it is

able to represent its true self to the public (Ilic & Webster, 2016; Moulard et al., 2015). It is shown under these behavioral (being true to oneself) and relational (being genuine in relationships) views the aim consumers have to evolve a relationship with celebrities, which are proved to be different from celebrity attachment (Ilic & Webster, 2014; 2016).

In sum, the psychology view contributes tremendously to the construction of brand authenticity regarding consumer behavior and its perceptions. The Self Determination Theory is the baseline when analyzing components in the consumer attitudes and outcomes, once brand authenticity is proposed by many scholars (Ilic & Webster, 2014; 2016; Moulard et al., 2015) as a construct that considers brands being genuine when relating to consumers.

2.4 ARTS

The theory that arises from the domain in Arts has a different approach from what was seen in the prior sessions. Authenticity in the arts is directly related to the "here and now" of objects, of works of art. Brands have immanent attributes, which are built by the vendor, or the artist, regarding the works of art, which can be noticed by its appraisers. Many theorists have studied the subject for decades (Benjamin, 1980; Price 1989; Schefold, 2002; Wengrow, 2008) and have similar ideas about the definition of authenticity in the arts. As well as masterpieces, brands reflect legitimate reproductions. The authentic reproductions, in the marketing field, can be seen as consumer goods or experiences provided by services (Ilic & Webster, 2014).

In the same rationale, Pinheiro-Machado (2010) believes that the "aura" of works of art referenced by Walter Benjamin (1980) is a kind of magic, that is, it is a social and individual construction. It is a consensus attributed by humans to an object that carries tangible and intangible properties. In this sense, Walter Benjamin points out that:

The *hic et nunc* of the work of art, the unity of its presence in the place where it is found ... *hic et nunc* constitutes what is called authenticity ... What characterizes the authenticity of a thing is all that it contains and is originally transmissible, from its material duration to its power of historical testimony. As this very testimony is based on that duration, in the hypothesis of

reproduction, where the first element (duration) escapes men, the second - the historical testimony of the thing - is identically shaken. Nothing is certain, but what is shaken is the very authority of the thing. (Benjamin, 1980, pp. 7-8).

Also, for Lima and Magalhães (2010) the *hic et nunc* (here and now) of the work of art is essential for its authenticity, since its reproduction uses artifices of clipping, of approximation, of enlargement and does not link it to its history. Thus, without the historical testimony, the authenticity of the work of art decays and becomes a product of an event and vivid actuality. Therefore, the words of Benjamin (1980) serve as a basis for the central idea of Lima and Magalhães (2010) on the authenticity of works of art:

The *hic et nunc* of the original constitutes what is called its authenticity. In order to establish the authenticity of a bronze, it is sometimes necessary to resort to chemical analyzes of its patina; to demonstrate the authenticity of a medieval manuscript one must at times determine its actual origin from a fifteenth-century archival depository. The very notion of authenticity has no meaning for reproduction, whether technical or not. (Benjamin, 1980, pp. 7-8).

For Dutton (2003), in the arts, the sense of authenticity rests on two categories: nominal and expressive authenticity. The first is the correct identification of the origin of the work, of its authorship; an aesthetic object is properly identified. Yet, the second refers to the possession of original, inherent authority, linked to existential philosophy in which a life lived in an authentic way is lived with critical sovereignty, independent of choices or values (Dutton, 2003). As for this, Grayson and Martinec (2004) present analogously two forms of authenticity – indexical and iconic. The former refers to the brand attributes while the latter is related to consumer perceptions. Also, consumers evaluations of authenticity are influenced by intrinsic cues (quality, product exposure and experiences) and extrinsic cues (advertising tools) which strengthens the idea that brand authenticity is not only a subjective evaluation in the relationship consumer-brand nor only an objective proposition of attributes (Athwal &

Harris, 2018; Nguyen & Gunasti, 2011).

2.5 COMMUNICATIONS

Once the authenticity is brought from the diverse domains to the marketing field, the same happens to authenticity in communications. It is common to see campaigns of luxury brands, such as Chanel™, with supermodels or celebrities representing them. What does the vendor try to communicate? He tries to associate the brand name with a set of symbols that represent status, sophistication, quality, or any other characteristic, in short, to a narrative. According to Johnson, Thomson and Jeffrey (2015), the narrative is a story that imitates the real world or is even fictitious. Either way, it has to make sense of its purpose; otherwise it will not be tolerated by its public (Johnson et al., 2015). The brand is "simply a story that is connected to an object" (Twitchell, 2004, p.484). Stories created by communication can be seen as authentic. This is because even though consumers see it as something that has been created and aimed at promoting it, it suggests the existence of an irrational behavior that provokes the emergence of a certain "poetic license" for brands (Johnson et al., 2015).

In terms of brand authenticity, communications employ a direct influence, by giving information to consumers that are responsible for then deducing previously given cues. Also, brand authenticity clarifies brand positioning and can serve as competitive different in mature markets (Dwivedi & McDonald, 2018).

In sum, philosophy is responsible for providing to brand authenticity the existential perspective where it is said that, in the postmodern era; the consumption is based on practices and experiences (Leigh et al., 2006; Athwal & Harris, 2018). Also, theories developed by psychology make possible to understand the reason why consumers are prone to seek for authentic brands once they want to enhance their best selves and finding meaning in their lives. Yet, by delving into the art propositions of authenticity, it is clear to notice that brand authenticity connotes a brand's immanent attributes once they are built by the vendor and communicated to consumers through advertising tools (Arnould & Price, 2000; Athwal & Harris, 2018; Dwivedi & McDonald, 2018; Holt, 1998; Rose & Wood, 2005; Thompson et al., 2006).

Hence, brand authenticity is the conformation between the attributes of a brand itself and the capture of those attributes by the consumer; so the brand authenticity is necessarily

composed by two terms: prominent authenticity (vendor) and perceived authenticity (individuals that assess the brand). Thus, an authentic brand maintains its characteristics, consciously and consistently, in the delivery of its products and/or services, even in the most turbulent scenarios, with the risk of being mischaracterized, since authenticity combines, as already seen, components inherited with elements that are conferred upon it by assessment of its connoisseurs. Thus it carries an objective and a subjective part.

As the focus of this dissertation is to define an all-embracing concept and adequate its operationalization, the theoretical foundation shown from different areas of study is essential to posit the multiplicity character of the construct. Therefore, the literature review covers some disciplines in order to propose a comprehensive definition of brand authenticity, which blends diverse domains of knowledge, and also, to obtain an empirical model able to contemplate such complexity. The next sessions will debate brand authenticity attributes and the perception process, i.e., the prominent (vendor-built) authenticity and the perceived (user-recognized) authenticity that reign for the consolidation of the brand authenticity construct.

2.6 AUTHENTICITY IN MARKETING

Authenticity, moreover, is not a commonly defined construct from the perspective of brand management (Akbar & Wymer, 2017; Athwal & Harris, 2018; Grayson & Martinec, 2004; Morhart et al., 2014; Napoli et al., 2014; Rose & Wood, 2005; Schallehn et al., 2014). The concept of brand authenticity is tied to the hyper-reality of postmodern society in which there is a range of brand offerings, but which increasingly loses meaning as they are massified rather than original (Arnould & Price, 2000; Beverland & Farrelly, 2010; Firat & Venkatesh, 1995; Morhart et al., 2014; Napoli et al., 2014; Thompson, Rindfleisch & Arsel, 2006).

Most definitions of brand authenticity, permeate the denotative meaning of the term ‘authenticity’ as defined by the Merriam Webster Dictionary (2018):

Worthy of acceptance or belief as conforming to or based on fact. b. conforming to an original so as to reproduce essential features. c. made or done the same way as an original (Merriam Webster Dictionary, 2018).

The definitions by the Merriam Webster Dictionary (2018) reflect the implying and general concept of authenticity, so do most of the scholars in Marketing (Akbar & Wymer, 2017; Fritz et al., 2017). A few authors (Akbar & Wymer, 2017; Bruhn, et al., 2012; Ilic & Webster, 2016; Morhart et al., 2014; Napoli et al., 2014) have conceptualized it along with the multidimensional structure and complexity, which brand authenticity, carries. Most of them still lack the core tenets of authenticity.

The scarce definitions of brand authenticity present in marketing (Akbar & Wymer, 2017; Bruhn et al., 2012; Fritz et al., 2017; Lewis & Bridger, 2000; Morhart et al., 2014; Napoli et al., 2016), have their significance tied to genuineness and is commonly used to refer to the reality or truth of something (Bendix, 1997; Goldman & Papson, 1996; Peterson, 2005).

In order to comprehend broadly the concept already addressed in the academic environment (Appendix A) is presented. It highlights the most recent articles (of the last 14 years) on brand authenticity. They were grouped according to author, year, name, published journal, goals, method, main results and their major limitations. This compilation makes possible a better understanding of the term in the marketing field.

The observations, onward, follow the chronological appearance of the term ‘brand authenticity’ in the pertinent books and journals and are compiled in Table 1, p.22.

Lewis and Bridger (2000) discuss authenticity under a psychological view. They argue that consumers seek to discover themselves through the use of authentic brands. That's the reason they mention accuracy and intimacy and the process that users perform when evaluating a brand whether it is authentic or not. The so-called ‘performance’ is related to the ability of the human beings perform, through the consumption of an authentic brand, and have aspirations to be their best selves. Their point of view is based on the assessment of, exclusively, users of authentic brands, i.e., a subjective process. They do not take into account non-users of authentic brands. Nevertheless, non-users have the ability of noticing and appraising authentic brand attributes once they are exposed through its communication aspects even if they are not consuming products or services of the brand in question. Also, by mentioning accuracy and intimacy, as part of the concept, only part of the process is reflected. An authentic brand is not only made of a subjective part, as discussed before.

Bruhn et al.’s (2012) concept relies on the fact that brand authenticity is merely subjective and is based purely on an individual perception of only four dimensions. It also

does not accomplish the term fully and it does not show the core dimensions that brand authenticity carries as its immanent part. Morhart et al. (2014) rely on the self-authenticity concept only, i.e. whether the brand can deliver authenticity to its users or not. Napoli et al. (2016) express their concept on the connotative meaning of authenticity: genuineness. As it was mentioned before, this definition is tautological indeed. Akbar and Wymer (2017) also define the term according to its general concept: original and genuine. It does not express the core tenets of the construct once its formative dimensions are left behind and its multidimensional characteristics are not represented. Fritz et al. (2017) propose a definition that is the most approximate to what is believed to be brand authenticity. They call iconic and indexical authenticity, as already defined by Grayson and Martinec (2004), expressing both objective and subjective parts of an authentic brand. But also, as the definitions mentioned above, it still does not accomplish all the intrinsic concepts to an authentic brand. They rely on values, norms, essence and nature and leave many forming dimensions behind such as commitment to quality, continuity, credibility, genuineness, heritage, integrity, originality, reliability, and sincerity.

Dwivedi and McDonald (2018), in the most up to date definition found in marketing literature, do not mention any dimension that contemplates the full concept and focus, merely, on perceived brand authenticity. Again, to affirm that brand authenticity is socially constructed (Dwivedi & McDonald, 2018; Leigh et al., 2006) does not add up to extending the body of knowledge and once more its definition becomes vague and tautological.

The authors exposed above conceptualize the term brand authenticity but do not cover its fully understanding. The other works, shown on Appendix A, do not analyze the concept origins and properties, on the other hand they move straight to the point of discussing its antecedents and consequences. But how is it possible to analyze impacts of a construct even if it is not clear in definition? That is the reason why the redefined brand authenticity is proposed in this dissertation.

Table 1 exposes the definitions found on literature. Chhabra (2005) defines brand authenticity by the process of creating subjective values that originates in consumers' perceptions of authenticity. Authentic brands are those that are perceived as genuine, real, reliable and meaningful (Gilmore & Pine, 2007). For Pinheiro-Machado (2010): "Authentic brands, from the perspective of the global capitalist market, are characteristic symbols that have intellectual property rights. The owners of the brands have social legitimacy that is

sustained by the market and by political principles." (Pinheiro-Machado, 2010, p.11). In addition, the latter author suggests that the authenticity of a product, beyond its origins, depends on its subjective ability to convince, and thus symbolic values add economic value to a brand (Pinheiro-Machado, 2010).

For Bruhn et al. (2012) brand authenticity is considered a rationally created characteristic, which depends on the subjective perception of the individual, in relation to a brand rather than being an immanent characteristic of the object. Napoli et al. (2014) define brand authenticity as a subjective assessment of genuineness that is determined by consumers. Likewise, Schallehn et al. (2014) consider that an authentic brand must be clear about what it represents and positions itself from the inside out, which differentiates it from a brand that subserves the latest tendencies established by media.

Morhart et al. (2014) define brand authenticity from three perspectives: iconic, indicial (manifested) and existential. The iconic authenticity refers to the brand communication style in relation to its virtues, its roots. The indicial, manifested, alludes to the inexistence of scandals related to the brand and the behavior of its employees, also, accordingly, without disorder, without immorality. The last aspect, the existential one, is related to the brand anthropomorphism, that is, the attribution of human characteristics to a non-human being. The brand provides humanized references to the consumer, so that it becomes self-referential (Aggarwal & McGill, 2012; Morhart et al., 2014).

Moulard, Raggio & Folse (2016) define brand authenticity as: "the extent to which consumers perceive that a brand's managers are intrinsically motivated in that they are passionate about and devoted to providing their products." (Moulard, Raggio & Folse, 2016, p. 423).

From a more contemporary point of view, Napoli et al. (2016) believe that the concept of brand authenticity must be seen as a continuum. That is, in a continuum of brand authenticity, brands may exhibit traits of authenticity, which are dependent on consumer assessment. Brands therefore have the ability to move along this continuum, either to the top, by being considered an authentic brand, or to the bottom, by losing status of authenticity. In this way, the authentic positioning of a brand has the potential to deliver positive results for both consumers and brands. However, this may vary based on an individual's need for authenticity and also for its assessments of the brand (Napoli et al., 2016). In the same sense, consumers do not judge brands as authentic or inauthentic, yet they attribute value to them

according to the stimuli received. This varies from certain dimensions inherent to the brand, such as quality, for example (Groves, 2001; Napoli et al., 2016).

Table 1
Brand authenticity definitions

Author (s)	Year	Page	Brand authenticity definition
Akbar & Wymer	2017	18	The extent to which a brand is considered unique, legitimate, truthful to its claims, and lacking falsity.
		25	An authentic brand needs to be original and genuine. Originality is the degree to which a brand is considered unique and devoid of imitation or derivation. Genuineness is the degree to which a brand is perceived to be legitimate and undisguised in its claims.
		29	The degree to which a brand is considered original and genuine, meaning it is unique and not derivative, and truthful to what it claims to be.
Bruhn et al.	2012	568	Rationally created characteristic informing an individual's subjective perceptions' of a brand rather than a characteristic immanent to an objective reality.
		572	A construct consisting of four dimensions, namely continuity, originality, reliability, and naturalness.
Dwivedi & McDonald	2018	1388	An authentic brand is one that is perceived by consumers as having a clear philosophy; one with a sense of what it stands for; a brand that lives up to its promise and is true to itself.
		1392	consumer evaluation of brand marketing communications as a holistic construct, representing overall consumer judgment based on consumer knowledge of a brand's marketing communication stored in memory. We incorporate consumer evaluations of four forms of communications, namely, advertising, sponsorship, social media and CSR as dimensions of brand marketing communications.
Fritz et al.	2017	8	The perceived consistency of a brand's behavior that reflects its core values and norms, according to which it is perceived as being true to itself, not undermining its brand essence or substantive nature, whereby the perceptual process involves two types of authenticity (i.e., indexical and iconic authenticity).
Interbrand	2016	none	Authenticity is not necessarily something a brand needs to acquire, since often it's something that is already there, but needs to be re-discovered. [...] But authenticity does not require strong roots in the past. [...] By offering products that are well-aligned with the company's brand promise (without the burden of too much history) and cleverly leveraging their roots, it demonstrates that a brand can be authentic, without being "old."
Lewis & Bridger	2000	28	Authenticity is defined as the quality of truth or accuracy, accuracy and intimacy, but it should be noted that such concepts are actually evaluated through the people who has experienced these products or services.
Morhart et al.	2014	3	The extent to which consumers perceive a brand to be faithful and true toward itself and its consumers, and to support consumers being true to themselves.
Napoli et al.	2016	3	It is a subjective evaluation of genuineness ascribed to a brand by consumers.

Note. The information on this table was retrieved from literature review.

None of the definitions, subtly constructed, represent the complexity of brand authenticity. Thus, a redefined concept is proposed.

Brand authenticity is the manifest between the construction of brand attributes, which come from its core and are dictated by its supplier, and the individual's perception of those attributes. It is an agreement between brand and stakeholders on what is delivered and what is experienced.

In fact, brand authenticity is nothing other than the conformation between the attributes of a brand itself and the capture of those attributes by the consumer; so the brand authenticity is necessarily composed by two terms, prominent authenticity (vendor) and perceived authenticity (individuals that assess the brand).

Thus, an authentic brand maintains its characteristics, consciously and consistently, in the delivery of its products and/or services, even in the most turbulent scenarios, with the risk of being mischaracterized, since authenticity combines, as already seen, components inherited - inseparable from its core - with elements that are conferred upon it by assessment of its connoisseurs. This is to say that the brand, in the context of authenticity, carries an objective and a subjective part, *ceteris paribus*, i.e., prominent and perceived authenticity.

2.6.1 Dimensionality

As far as its dimensions are concerned, brand authenticity is never one-dimensional; it is always multidimensional (Akbar & Wymer, 2017; Bruhn, et al., 2012; Ilic & Webster, 2016; Kososki, 2015; Morhart et al., 2014; Napoli et al., 2014; Spiggle et al., 2012).

Since brand authenticity is multidimensional, the purpose of this dissertation is to unveil the most appropriate set of dimensions that capture the full understanding of the brand authenticity complex. But the idea is not to create another generic definition and propound a new set of indicators through a new scale.

That is, for a brand to be considered authentic, it must have the following baseline constituent dimensions: commitment to quality, continuity, credibility, design, heritage, integrity and symbolism (Akbar & Wymer, 2017; Bruhn et al., 2012; Ilic & Webster, 2014; Kososki & Prado, 2017; Morhart et al., 2014; Napoli et al., 2014). As specific dimensions of authenticity, that is, dimensions that float - “the miasma of meaning surrounding a brand” (Alexander, 2009, p. 552), the following are suggested: corporate social responsibility, craftsmanship, nostalgia, origin, originality, self-authenticity and sincerity (Akbar & Wymer, 2017; Athwal & Harris, 2018; Kososki & Prado, 2017; Morhart et al., 2014; Napoli et al.,

2014). The baseline dimensions are built by the vendor and perceived by its connoisseurs and their presences are mandatory in the brand authenticity complex. The miasma dimensions are also built by the vendor and perceived by its connoisseurs, not always and do not necessarily have to be present in a brand to be considered authentic (Akbar & Wymer, 2017).

Since brand authenticity is a multidimensional construct (Akbar & Wymer, 2017; Bruhn et al., 2012; Ilic & Webster, 2016; Kososki, 2015; Morhart et al., 2014; Napoli et al., 2014; Spiggle et al., 2012) and the purpose of this dissertation is to understand how its structure of dimensions is formed, it is worth mentioning some considerations.

First, after the literature review, it is possible to perceive that, for a brand to be considered authentic, it must have certain attributes of authenticity. That is, some dimensions, theoretically and empirically tested, are part of the concept of what is common to all authentic brands. On the other hand, some brands have characteristics that are not present in other brands, also considered authentic though (Akbar & Wymer, 2017).

For instance, it is possible for a brand to be authentic without having the dimension 'nostalgia' in its composition. Think of Tesla®. Tesla® is a brand that has quality, originality and values, but it does not carry the sense of nostalgia in its concept. Yet, another authentic brand, Ford®, has the same dimensions as the previous brand: quality, originality and values. However, in addition to the previous features it provides 'nostalgia' to its consumers. Thus, both brands can be considered authentic because they carry common attributes: quality, originality and values. Under others circumstances, one provides nostalgia to its evaluators and the other does not. It does not mean that one is “less authentic” compared to the other, in contradiction of what was proposed by Napoli et al. (2016). It means that one carries special features that are built by the vendor and have the purpose of communicating them to its connoisseurs in such a way.

Also, authenticity on branding does not belong only to well established brands in the marketplace e.g. BMW®, Louis Vuitton®, Nestlé®, Red Bull® which have been traded for years (Guèvremont, 2018). Novice brands can also possess marketing cues, brand built, emerged from consumers perceptions of abstract impressions, individual assessed, (Brown et al, 2003) as demonstrated by Guèvremont (2018): “brand longevity is not essential to perceptions of authenticity by consumers.” (Guèvremont, 2018, p. 513).

In sum, there are dimensions that are broader in concept, and represent the core of authenticity and there are others that are quite specific in meaning and represent its coating,

i.e. ‘the miasma of authenticity’. In this sense, based on the literature review, dimensions were associated, common or specific (see Appendix C) between what is considered common to all brands in the construction of their authenticity and in what is considered specific to some of them. That said, since brand authenticity is made up of prominent (vendor-built) authenticity and perceived (user-recognized) authenticity, the common and specific dimensions may also be prominent and/or perceived. Common dimensions, also called global dimensions, are those that are imperative, indisputably, for the construction of an authentic brand. Specific dimensions, also called special dimensions, are those that are not inexorably necessary for building an authentic brand. However, the special dimensions allow the consolidation of authentic brands with particular characteristics according to what is meant to be shown to consumers, built by the firms.

To elucidate such concept, it is relevant to understand, briefly, the content of the dimensions:

Continuity means whether the brand is stable, consistent and permanent. It is timeless, historical and is able to transcend trends (Bruhn et al., 2012; Morhart et al., 2014).

Symbolism whether the brands provides means to assure who I am, and has a symbolic quality that consumers can use to define who they are or who they are not (Akbar & Wymer, 2017; Morhart et al., 2014).

Heritage whether the brand has a distinguished heritage, an engaging story, builds on long-held traditions, has a strong link to the past and acquire symbolic meanings (Authentic Brand Index, 2008; Beverland, 2006, 2009; Kates, 2004; Napoli et al., 2014).

Credibility whether the brand is transparent and honest towards the consumer, as well as has the will and ability to fulfill the claims it makes. Also, whether the brand is truthful and credible, keeps and delivers promises (Morhart et al., 2014; Bruhn et al., 2012, Cohn & Wolfe, 2016).

Commitment to quality whether the brand has stringent quality standards, which are maintained by the brand while employing finest materials and craftsmanship (Beverland 2006, 2009; Cohn & Wolfe, 2016; Napoli et al. 2014)

Integrity whether the brand has moral and responsibility towards its costumer (Morhart et al., 2014).

Originality whether the brand has introduced something new and unique to the market; is particular, individual and innovative and it aspires to be original and master of its own field with perdurance (Authentic Brand Index, 2008; Gilmore & Pine, 2007).

Sincerity whether the brand tries not to let people down and compromises with its values and principles (Authentic Brand Index, 2008; Napoli et al., 2014).

Design whether the brand maintains its original design, modernizes slowly through innovation and that does not follow trends (Beverland, 2006; Beverland et al., 2008; Brown et al., 2003; Kozinets, 2001).

Craftsmanship whether the brand is committed to traditions, has a passion for art and excellence in production and public repudiation of the role of modern industrial attributes and commercial motivations, i.e., the brand is made by a craftsman who pays attention to detail and is involved in the entire production process (Beverland, 2005; Napoli et al., 2014).

Nostalgia whether the brand connects consumer memories with a "golden age" that still perpetuates to current days and has a strong connection with the past (Napoli et al., 2014).

Origin whether the brand is proud of its origins, stays original and avoids complacency. It reflects aspects of its production and foundation and beginnings and how loyal it is in demonstrating this to its consumers (Beverland, 2008; Boyle, 2004; Firefish, 2014; Newman & Dhar, 2014).

Corporate Social Responsibility whether the brand wants a 'better tomorrow,' is not exclusively focused on today. It shows its commitment to sustainable development for present and future generations while meeting the needs of its consumers Boyle, 2004; Dwivedi & McDonald, 2018; Gilmore & Pine, 2007).

- Self-authenticity whether the brands helps consumer's internal needs for pleasure, love and self-identification (Napoli et al., 2016).

Table 2 provides a summary of brand authenticity dimensions explored in this dissertation and commonly explored by other works (Akbar & Wymer, 2017; Bruhn et al. 2012; Boyle, 2004; Gilmore & Pine, 2009; Morhart et al., 2014; Napoli et al., 2014, Newman & Dhar, 2014). Corporate social responsibility was only qualitatively examined which provided relevance to the concept of authenticity but was not further empirically tested. Craftsmanship, design, nostalgia and self authenticity were nor qualitatively nor quantitatively investigated but provides means to the complexity of the term genesis. The other items,

continuity, credibility, genuineness, heritage, integrity, origin, originality, sincerity and symbolism were all tested but not commonly to all works. This provides a limitation of all scales and underlines the importance of this dissertation.

Table 2
Common dimensions to brand authenticity scales

Dimension	Author (s)	Operationalized?
Continuity	Bruhn et al (2012); Morhart et al (2014)	Yes
Corporate Social Responsibility	Boyle (2004)	No
Craftsmanship	N/A	N/A
Credibility	Morhart et al (2014)	Yes
Design	N/A	N/A
Genuineness	Akbar & Wymer (2017)	Yes
Heritage	Napoli et al. (2014)	Yes
Integrity	Morhart et al (2014)	Yes
Nostalgia	N/A	N/A
Origin	Newman & Dhar (2014)	Yes
Originality	Gilmore & Pine (2009); Bruhn et al (2012)	Yes
Quality Commitment	Napoli et al. (2014)	Yes
Self Authenticity	N/A	N/A
Sincerity	Napoli et al. (2014)	Yes
Symbolism	Morhart et al (2014)	Yes

Note. The information on this table was retrieved from literature review.

2.6.2 The Formation Process

Brand authenticity is manifested through prominent dimensions and perceived, thus it describes a verification process, of a true or fact regarding some properties or dimensions (Beverland & Farrelly, 2010; Newman & Dhar, 2014).

Alexander (2009) proposes a conceptual model of brand authenticity facets, as seen in Figure 1. The model dictates that brand authenticity attributes developed by the vendor, in the back stage, such as quality, methods of production, heritage and pedigree, emanates through its relationship to place driven by its stylistic consistency image. This would be the beginning of the process. After that, engagement is driven by the commercial motives and creates a brand aura perceived by brand's users at the front stage.

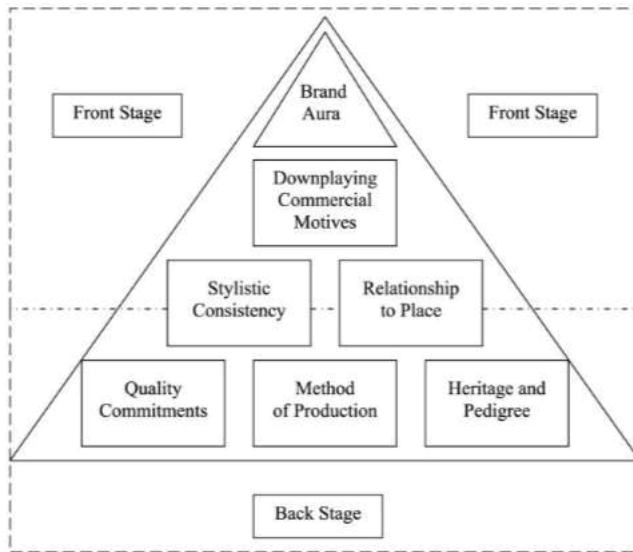


Figure 1. Hierarchy of authenticity attributes

Source: Alexander, N. S. (2009). Brand authentication: creating and maintaining brand auras. *European Journal of Marketing*, 43 (3/4), 551-562.

Once the model (Alexander, 2009) was not empirically tested it yields room for discussion and improvements. To affirm that heritage and pedigree are attributes that begin the process of ‘brand authentication’ does not take into account the case of ‘novice’ brands proposed by Napoli et al.’s (2016) continuum model (Figure 2). The biggest challenge for those brands is to provide a strong foundation on which authenticity can be built on (Napoli et al., 2016). In the brand authenticity continuum (Napoli et al., 2016), brands embrace, at the foundation level – ‘germination’, attributes such as essence, norms, values and sincerity found in the ‘novice’ brands. This is because a brand has to act with integrity, in its first impression to customers, to be perceived like authentic. Once the brands become ‘apprentices’, in the ‘cultivation’ level, they have to shift their value proposition, already consolidated in the base level. At this stage, the brand is able to provide quality and heritage, which are translated, from the vendor to consumer by the crafted means of production, i.e., artisan skills, knowledge and traditions. Thus, dimensions such as craftsmanship, commitment to quality and heritage help to enhance consumer’s internal needs for self-identification meanwhile the brand performance is increased (Napoli et al., 2016; Patterson & O’Malley, 2006). At the next level – ‘consolidation’ – the values proposed previously would still have to make sense to consumers, so, dimensions such as sincerity, credibility and reliability would be determining to ensure brand’s commitment to consumers. Once a brand has delivered the prior

characteristics to its users, it is important that they also preserves them ('preservation'), the highest level, to keep delivering value to customers.

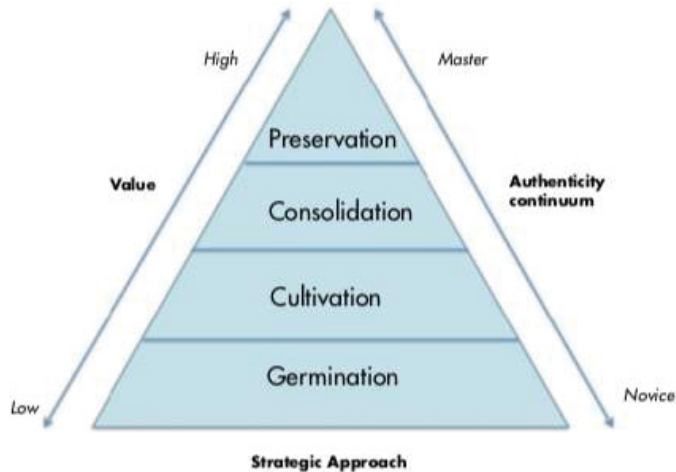


Figure 2. Strategic approaches for building value along the brand authenticity continuum

Source: Napoli, J., Dickinson, S., & Beverland, M. (2016). The brand authenticity continuum: strategic approaches for building value. *Journal of Marketing Management*, 32, 1201-1229.

Napoli et al.'s, (2016) brand authenticity continuum derived from a multistage clustering approach that consists of taking samples in stages by the use of smaller and smaller sampling units at each stage. It is a complex form of cluster sampling because it involves dividing the population into groups, where "the sampling design is the key" (Wang, Ge, Fan, Chen, Liu, Jin & Yu, 2006, p. 239; Thompson, 2012). 312 respondents participated in their study, however, as Napoli and colleagues (2016) consider as a limitation to their own work is their convenience sample. The respondents came from an organization that rewards consumers willing to answer surveys, which, in this case, characterized a convenience sample. As the authors mention, regarding their database sample: "However, these individuals may not be truly representative of the broader population, which brings into question the generalizability of our findings" (Napoli et al., 2016, p. 18). As for that, the brand authenticity continuum does not have replicability in the marketing field, once the sample does not represent the extensive population (Napoli et al., 2016).

Inasmuch as brand authenticity is conceptually seen as a multidimensional construct, as well as a continuum, (Akbar & Wymer, 2017; Bruhn et al., 2012; Ilic & Webster, 2014; Kososki & Prado, 2017; Morhart et al., 2014; Napoli et al., 2014), the most adequate method to reenact such status would be the one presented in this dissertation, the Item Response

Theory. As mentioned along this work, the IRT allows the independence of the measuring instrument in relation to its object by granting diverse items to be differentially useful for measuring. That is, there is a possibility that an item's usefulness differs across even for non-representative samples (De Jong et al., 2007, 2008; Pasquali, 2003; Pereira & Pinto, 2011).

Once again, the perception process of brand authenticity occurs through authentication (subjective process) and certification (objective process) (Alexander, 2009; Arnould & Price, 2000; Athwal & Harris, 2018; Dwivedi & McDonald, 2018; Grayson and Martinec, 2004; Holt, 1998; Rose & Wood, 2005; Starr & Brodie, 2016; Thompson et al., 2006). It can be perceived, by users and non-users, through the actions of communication and, exclusively, by its consumers by experiencing the attributes that the brand carries. Thus, brand authenticity is able to generate in its users and non-users, surprise, impact, spontaneity. In this sense, there is a difference of perception of authenticity for brand users and non-users. That is, consumers (users) evaluate the communication and the experience of their attributes while brand connoisseurs (non-users) evaluate, only, the manners brands communicate them.

2.6.3 The hierarchical model

The aim is to present a redefined all-encompassing concept along with its hierarchical structure of dimensions. The hierarchical structure reveals a construct's most representative items of a group of items (Fragoso, 2010; Pasquali & Primi, 2003; Richardson, 1936). Thus, if brand authenticity is formed by quality, integrity and originality, for instance, the dimension that has a stronger impact on the set of items will be the one that serves as the baseline of the hierarchical model. Also, the remaining ones will follow that structure according to its impact on the wholesome arrangement.

Understanding that brand authenticity is a relationship between an authentic brand and a customer, based on objective and subjective cues, corroborates the previous works of marketing scholars such as Akbar and Wymer, 2017; Bruhn et al., 2012; Grayson and Martinec (2004); Napoli et al., 2014; Morhart et al., 2015. Also, the operationalization provided by the authors above mentioned share similarities. Bruhn et al., (2012) developed a 15 items scale grouped into four dimensions: continuity, originality, reliability and naturalness. Although they found validity and reliability in the scale, the research was applied

only in countries that speak German and did not take into account dimensions such heritage, norms and values.

Napoli et al., (2014) provided a measurement built under 14 items representing three interrelated factors: commitment to quality, honesty, and heritage. Cultural symbolism and sincerity dimensions did not emerge in the quantitative results, which contradicted their theoretical basis as they were said to be essential to brand authenticity.

Morhart and colleagues (2015) built a four-dimensions scale (continuity, credibility, integrity and symbolism) but did not take into account commitment to quality, honesty, and heritage. As for Akbar and Wymer, (2017) the concept of brand authenticity is two-dimensional and is built on: genuineness and originality.

The brand authenticity scales developed up to date do not cover the complexity the term employs. Many attributes analyzed by the various qualitative works, are not presented in the quantitative works. This resides in the fact that something that is unclear conceptually won't be properly measured (Akbar & Wymer, 2017; MacKenzie, 2003; Stern et al., 2001). Also, they were developed in different cultural contexts and concerns associated with cross-cultural validity were not considered (Napoli et al., 2016).

So, in order to clarify such misconceptions, the term brand authenticity was redefined in this dissertation and a hierarchical structure model is proposed based on such concept (Figure 3).

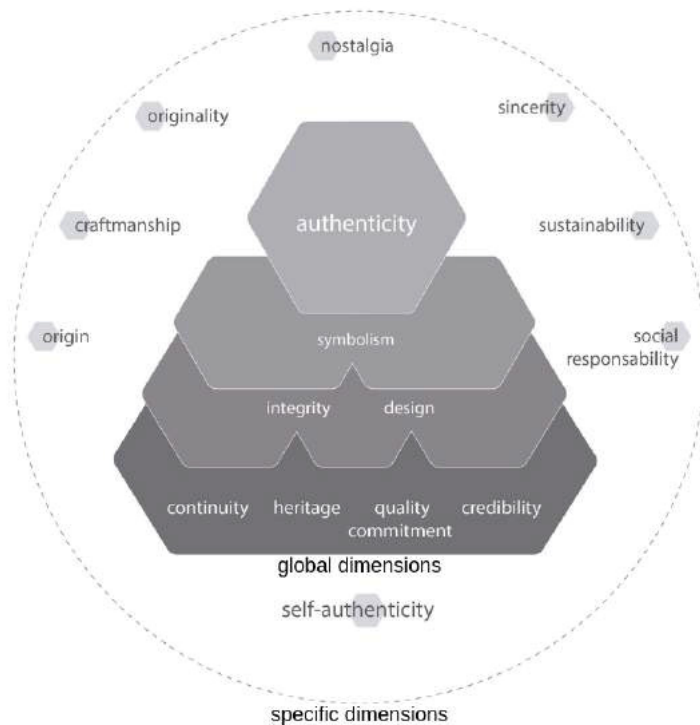


Figure 3. Conceptual model of brand authenticity hierarchical structure

Note. Global dimensions are the ones that build brand authenticity in an hierarchical order: 1 continuity, 2 heritage, 3 quality commitment, 4 credibility, 5 integrity, 6 design and 7 symbolism. Specific dimensions are the ones that float around the brand authenticity complex: 8 originality, 9 sincerity, 10 origin, 11 corporate social responsibility, 12 craftsmanship, 13 nostalgia, and 14 self-authenticity. This model was conceptualized from this author (2019).

The brand authenticity hierarchical structure confers the same general configuration (common items) to all authentic brands, namely, they do not vary from contexts. The common items dictate, altogether, authenticity to a brand - “dimensions must be applicable for all types of brand objects” (Akbar & Wymer, 2017, p. 21). Beyond that, there are marked differences, in the structure’s enclosure (specific items), which may vary between contexts, categories of products or services, types of consumption (hedonic or utilitarian), buying frequency, time in the marketplace and forms of communication. Such different conformations are based on the unique cues that consumers perceive that allow them to reconnect to time, place, culture and others (Liao & Ma, 2009; Napoli et al., 2016). In this case, the enclosure of the structure will evolve over time, differently from the overall structure, which is continuous (Napoli et al., 2016; Peterson, 2005).

The items that comprise the hierarchical structure (Figure 3) are discussed below. The hierarchical structure is based on a configuration of items, retrieved from the extent literature (Appendix 3), that comprise the concept of authenticity. The baseline level is compound by continuity, heritage, quality commitment and credibility, which represent the structure’s

sustention.

The genesis of brand authenticity is built around credibility and continuity. To deliver value to customers, brands must preserve the previous attributes, regularly. They are translated by transparent and honest acts towards the consumer - the ability to fulfill the claims it makes, by being truthful and credible (Bruhn et al., 2012; Cohn and Wolfe, 2016; Morhart et al., 2014). The willingness to commit strongly and durably to the brand's principles and core. It emanates strongly from deeply embedded features from the organization's structure without identity changes. Such organization behavior resists shifts, and can, only, be changed with great costs. By being credible to customers, brands gain more attention, appeal stronger and persist longer than those, which are not. Credibility reflects brand's transparency and honesty towards the consumer, i.e., a brand depicts credibility by assuring customers that they will purchase the brand promises (Carroll & Wheaton, 2009; Hannan & Freeman, 1984, Morhart et al. 2015; Okonkwo, 2007).

Thus, once those qualities are perceived by the consumer, the brand must show its stability over time. The ability to be permanent, i.e., transcend trends and at the same time be timeless, comprise the continuity factor: "since I was a kid" brand. In this sense, continuity might have a temporal approach, objective perspective, and existential approach, memories from childhood, for instance (Bruhn et al., 2012; Morhart et al., 2014, Napoli et al., 2014).

Besides, when a brand has a strong heritage it is seen as a sincere brand. By depicting heritage, a brand shows an engaging story, builds on long-standing traditions, has timeless design, is strongly linked to the past and acquires symbolic meanings (Authentic Brand Index, 2008; Kates, 2004; Napoli et al., 2014). Heritage means to recognize and acknowledge a collective past, a link between modern times and earlier societies, either in a positive or negative thinking: "things are better now" or "they were better before". This link might help individuals to understand their heritage and position themselves through expressing values and beliefs. By building heritage, brands have an enduring presence, with engaging stories and acquire symbolic meaning over time. There is a strong link between continuity and heritage as both refer to the brand's history and stability and the likelihood of persistence in the future (Beverland, 2006; Carroll & Wheaton, 2009; Kates, 2004; Napoli et al., 2014).

Also, at the base level, commitment to quality is another forming attribute, which is central to building authenticity. Brands associated with high-quality, even in the most turbulent scenarios, are considered authentic regardless of the change in manufacturer and

distributor. They act in accordance with values and norms, providing integrity and continuity, either for products or services brands (Alexander, 2009; Athwal, 2018; Beverland, 2005; Morhart et al., 2015). To succeed, brands need to leverage authority and authenticity to be able to legitimately deliver quality and differentiate themselves from commercially driven competitors (Allen, Fournier & Miller, 2008; Holt, 2002).

Moving up to the next layer, integrity and design are constituted. Integrity depicts the brand's founders values, owners and/or its members and go beyond what is a convention of society, i.e., it is consistent in reflecting beliefs from where it came from and what currently is (Carroll & Wheaton, 2009; Eggers et al., 2012). Besides that, the brand must act with integrity by behaving morally and responsibly towards its consumer (Morhart et al., 2014; Napoli et al., 2014). Yet, at this level, integrity is promoted when the brand is perceived as being true to its spirit, compromises to people and does not deceive them (Authentic Brand Index, 2008; Liao & Ma, 2009; Napoli et al., 2014).

Design is related to the brand preferences for natural processes and materials, lacking artificiality in virtue of the quality standards rigorously maintained through finest materials by maintaining its original design, modernizing slowly through innovation and not following trends. Providing classic and timeless products, innovative, creative and appealing product designs and packaging will sustain brands with design along with the previous attributes (Beverland, 2006, 2009; Beverland et al., 2008; Boyle, 2004; Brown et al., 2003; Bruhn et al., 2012; Cohn & Wolfe, 2016; Gilmore & Pine, 2007; Kozinets, 2001; Napoli et al., 2014).

At the next stage, by acquiring symbolism, consumers connect their personal identities and experiences with the brands, on an emotional level, through consumer's self-referential cues (Athwal & Harris, 2018; Beverland et al., 2010). I.e. the brands provide means to assure who I am, and has a symbolic quality that consumers can use to define who they are or who they are not (Akbar & Wymer, 2017; Morhart et al., 2014).

Thus, the hierarchical model of brand authenticity intertwines existential (symbolism), objective (quality commitment, continuity, heritage) and constructivist perspectives (continuity, integrity, heritage, credibility) through the different manifestation of brand attributes, the assessment by its connoisseurs and the construction of consumers' self.

Hence, when a brand devoids imitation, is legitimate, introduces something new and unique to the market, it is considered genuine and original. Moreover, the brand is particular, innovative and is a master of its own field with perdurance (Akbar & Wymer, 2017;

Authentic Brand Index, 2008; Bruhn et al., 2012; Derbaix, 2007; Firefish, 2014; Gilmore & Pine, 2007). So, when a brand manifests all the previous items, it ascends along the arrangement and reaches its apex and being thoroughly perceived, by grasping to the top, an authentic brand is built: “an entity’s worthiness due to its pure origin” (Akbar & Wymer, 2017, p. 16).

The ongoing discourse of the model follows with the “external” arrangement of specific dimensions. There are brands that do not only possess inherent authenticity attributes (e.g. quality commitment). They go beyond formal authenticity and yet strive to attain competitive differentiation. Such brands may be from luxury goods, premium mass-marketed products, low-involvement or either service brands that want to gain a one of a kind differentiation. By providing further characteristics through positioning, brands may promote a “flair of nostalgia” or an aspect of social responsibility. That is the reason why this items are involving the forming dimensions of authenticity. Not all authentic brands necessarily are seen as nostalgic or socially responsible (Dwivedi & McDonald, 2018). In order to provide further explanation on the ‘miasma’, the next paragraphs are seen.

As for the enclosure of the model, originality relates to brand innovativeness, being able to demonstrate product expertise through continuous innovation. By being innovative, a brand causes impacts, surprises on consumers and in this sense the future might be less traditional and devote more originality and substance (Bruhn et al., 2012; Gilmore & Pine, 2009).

Corporate social relationship regards to the company’s ability to actually making a difference in society by maximizing social impact through convergence of social and business interests and even it is a strategy differentiator is not seen in all authentic brands (Sen, Du, & Bhattacharya, 2009).

Craftsmanship relates to the manufacturing practices that are contrary to the mass production by using raw materials and handcrafted production processes (Beverland, 2005, 2008; Carroll & Swaminathan, 2000; Maccannel, 1976; Napoli et al., 2014; Postrel, 2003).

Nostalgia relates to the consumer’s perception of a retrospect to a “better time”, i.e., former values. It provokes emotional reactions to shifting residential patterns (Brown et al., 2003; Chhabra et al., 2003).

Self-authenticity represents a continually process through which people reevaluate themselves, to ensure that their actions are aligned with their deeply held values and beliefs.

They take responsibility for their own actions, which builds autonomy, and the brand helps finding consumer's internal needs (Napoli et al., 2014; Sartre, 1943).

In sum, the forming pieces of authenticity are: (1) global dimensions, the items that reflect sincere attributes by building overall authenticity (2) specific dimensions, the items are associated to a brands' positioning. Enhancing brands with attributes are named as prominent (brand-built) or either perceived (individual's assessed). Also, authentic brands can create auras of specific positioning such as nostalgic, innovative, crafted, etc., which can also be built or either perceived. Enhancing the brand authenticity claim involves firstly entailing attributes and making them as transparent as possible, and secondly involving stakeholders to accept the claims, values, and beliefs.

Consumers, in the postmodern era, seek for connections with brands that allow them to represent their authentic selves while satisfying their needs and desires (Akbar & Wymer, 2017; Dwivedi & McDonald, 2018; Napoli et al, 2016). Brands that build up the brand authenticity structure, can better understand how they are positioned by the utilization of pertinent cues (Akbar & Wymer, 2017; Bruhn et al., 2012; Dwivedi & McDonald, 2018; Napoli et al, 2016). In sum, an authentic brand is a symbolic entity that signals attributes (global dimensions) and may have several other associations (specific dimensions) that make it unique. In addition to that, the domains of knowledge that impact the term in the marketing field will next be exposed.

2.7 BRAND AUTHENTICITY *VERSUS* OTHER VARIABLES

The ability of a construct to possess antecedent causes, outcomes or vary across conditions regarding its effects is paramount for the better comprehension of firms on how to strategically work on this concept, once brand authenticity appeals to the market and is seen as a target realm of brand management (Fritz et al., 2017; Grayson & Martinec, 2004, Tian et al., 2001).

The individual's self identification with the brand influences brand authenticity's formation (Beverland, 2006; Fritz et al., 2017; Grayson & Martinec, 2004; Groves, 2001; Kates, 2004; Leigh et al., 2006; Liao & Ma, 2009; Newman & Dhar, 2014; Spiggle et al., 2012). Brand authenticity is a predictor of brand attitudes and purchase intentions (Ilic & Webster, 2014) as well as various positive psychological and behavior consumer results (Fritz

et al., 2017) such as attachment, brand equity, brand loyalty, reputation, trust and satisfaction, but in this work purchase intention and word-of-mouth are covered. This work believes that brand authenticity will increase purchase intention as well as word-of-mouth (Beverland, 2005; Ewing et al., 2012; Fang & Zeng, 2015; Ilic & Webster, 2014; Liu & Jang, 2009; Spiggle et al., 2012).

The concept of attitude is derived from Social Psychology (Thurstone, 1931), is used to refer to a general feeling, for instance as an individual's overall evaluation of a concept which may be positive or negative (Fazio, 1986). An attitude is a predisposition to learn in order to respond favorably or unfavorably to something and can be shaped directly by the experiences or information received (Blackwell, Miniard & Engel, 2005; Fishbein, 1980; Lutz, 1981; Park et al., 2010; Russell, 2002). In this case, brand authenticity and attitude are both assessments of a brand. However, brand authenticity is always seen as positive and is formed by a set of items while attitude is one dimensional.

Brand image, one of the dimensions of the CBBE (Keller, 1993), is associated to the meaning that the brand offers to the consumer (Kapferer, 2003; McCracken, 1986). Brand authenticity, once is a multidimensional variable, is also associated with symbolic offerings to individuals. However, authenticity is a more complex construct once is formed by fourteen dimensions that intertwine many areas of knowledge, including the objectivist approach which brand image does not include.

Also, brand authenticity, in a strategic manner, nurtures emotional bonds with consumers by enhancing brand loyalty (Fritz et al., 2017; Gilmore & Pine, 2007). They believe that authentic brands will repeatedly act in the best interest of society, thereby demonstrating trustworthy intentions (Beverland, 2005; Napoli et al., 2014).

Brands assessed as authentic are significant predictors of purchase intentions and word-of-mouth which corroborates with the established literature (Lude & Prügl, 2018; Sirdeshmukh & Sabol, 2002). For instance, when consumers feel strongly connected to an authentic brand, they can also have a positive attitude to it, such as word-of-mouth. Consumers, whose expectations are satisfied, keep in touch with each other and share positive opinions about the brand, so encouraging them on purchasing it and, therefore, reaching more consumers through word-of-mouth (Beverland, 2006; Carroll & Ahuvia, 2006; Ewing et al., 2005; Fournier, 1998; Fritz et al., 2017; Guèvremont, 2018; Molleda, 2010; Moore, 2006; Napoli et al., 2013, 2016; Spiggle et al., 2012; Yildiz & Ulker-Demirel, 2017).

3 METHODOLOGY

The research procedures provides a structure as to how data was collected and analyzed to fit the research problem and objectives.

Initially, trough and exploratory investigation on the quantitative works of brand authenticity (Akbar & Wymer, 2017; Bruhn, et al., 2012; Kososki, 2015; Kososki & Prado, 2017; Ilic & Webster, 2016; Morhart et al., 2014; Napoli et al., 2014; Spiggle, et al., 2012) and concepts adopted in qualitative previous research, a new set of measurement items was suggested (Appendix B).

The new pool of items (see Appendix B) follows the guidelines provided by scale development scholars (Bearden, Netemeyer, & Teel, 1989; Churchill, 1979; Dagger, Sweeney, & Johnson, 2007; Tian, Bearden & Hunter, 2001).

An expert panel was yielded, through Qualtrics, to ensure content validity, also known as face validity (Netemeyer et al., 2003). First, the judges were given the definition of each dimension of brand authenticity, by means of a theoretical explanation and item examples. The set of 122 statements anchored on a 3-point Likert scale (1 = ‘not at all representative’, 3 = ‘clearly representative’) reflecting 19 construct dimensions was generated from the prevailing literature on brand authenticity. They were asked to allocate the statements to the most appropriate dimension or to eliminate the statement. During this process, five academics: two marketing professors, two English-Portuguese professors and a psychometric one were in charge to analyze and judge the content in order to guarantee semantic and an overall scale quality. Also, two marketing consultants participated in the verification panel, one from a Brazilian company and the other one from a multinational firm. They were able to modify, add, eliminate and criticize items.

Second, they were asked to evaluate the new set of items 96 items anchored on a 3-point Likert scale (1 = ‘not at all representative’, 3 = ‘clearly representative’) reflecting 17 construct dimensions. According to their responses, in order to have a good quality instrument, the items were refined. An item was cut out or modified if at least one expert rated it as ‘not all representative’, i.e. having a poor definition of brand authenticity. After the analyses, a final set of dimensions was generated and resulted in 74 items, formed by 15 dimensions in which 8 reflect the global authenticity and 7 reflect specific dimensions (see Appendix F). Categories such as naturalness and reliability (global), values and sustainability

(specific) were moved to pertinent dimensions according to its semantic meaning suggested by the experts.

The next step was to back translate the instrument to help to identify notorious errors in translation regarding cultural differences (Douglas & Craig, 2007). The English-Portuguese professors were responsible for such task. After that, the marketing professors performed the reverse translation and the marketing and psychometric scholars compared the translations to the original document. After the completion of this task, a pre-test was performed.

The pre-test was carried out, in October 2018, among 30 undergraduate students (18 female and 12 male) for checking the “clarity, conciseness, grammar, reading level, face validity, and redundancy” of the instrument (Worthington & Whittaker, 2006, p. 814). The full process guaranteed better scrutiny and a reduced, but proper scale, which provides the adequacy of the construct’s abrangency and guarantee better quality to the instrument (Akbar & Wymer, 2017). The instrument did not show any comprehension problems so the data collection was performed and its details will be shown next.

At the beginning of the survey respondents were presented to one brand, randomly chosen by Qualtrics®, among 42 brands (Table 3, p.45). The pool of brands includes luxury brands (Athwal & Harris, 2018; Beverland, 2005; Leigh et al., 2006), mass-marketed/product brands (Alexander, 2009; Beverland, 2008; Bruhn et al., 2012; Choi et al., 2015; Dwivedi & McDonald, 2018; Fritz et al., 2017; Gundlach & Neville, 2012; Newman & Dhar, 2014; Schallehn et al., 2014; Spiggle et al. 2012), service brands (Goulding, 2000; Grayson and Martinec, 2004) and technology brands.

Brand’s choice was based on the Cohn & Wolfe’s report: ‘Authentic Brands’ from 2017, ‘The World’s Most Reputable Companies 2018’ by Forbes and the ‘Bad reputation: America’s Top 20 most-hated companies’ by USA Today.

Among these 42 brands, half of them possibly represent authentic brands and the other half inauthentic brands. Those brands were chosen in order to propose a potential contrast in the authenticity composing structure, once the most reputable ones might carry authenticity dimensions whilst the less reputable ones, or the ones found in scandals, might not show such dimensions once brands that get involved in scandals lose the image of trust and aggravate its manifestation of authenticity (Guèvremont & Grohmann, 2017; Napoli et al., 2014). The brands are internationally well known.

Table 3
Brands comprised in the survey

Potential Authentic Brands	Category	Potential Inauthentic Brands	Category
Adidas	Apparel	Alibaba	Technology
Airbnb	Services	Bayer	Industrial
Amazon	Technology	Campari	Food and Beverages
Apple	Technology	Electronic Arts	Entertainment
Avon	Hygiene and Beauty	Facebook	Technology
BMW	Industrial	Hermès	Luxury
Coca-Cola	Food and Beverages	Hershey's	Food and Beverages
Disney	Entertainment	Honda	Industrial
Google	Technology	Lancôme	Hygiene and Beauty
Heineken	Food and Beverages	Monster	Food and Beverages
HP	Technology	NFL	Entertainment
Intel	Technology	Nike	Apparel
Johnson & Johnson	Hygiene and Beauty	Nivea	Hygiene and Beauty
Louis Vuitton	Luxury	Nokia	Technology
Nescafé	Food and Beverages	Pepsi	Food and Beverages
Nestlé	Food and Beverages	Pfizer	Pharmaceutical
Netflix	Services	The Pirate Bay	Technology
RayBan	Sunglasses	Uber	Services
Red Bull	Food and Beverages	Yahoo	Technology
Rolex	Luxury	Zara	Apparel
Sony	Technology		
YouTube	Technology		

Note. The information on this table was retrieved from this work (2019).

The respondents who left their e-mail at the end of the survey, as well as answered the attention check sentences, correctly, participated of a R\$150,00 voucher draw of a fashion brands' ecommerce to encourage participation (Appendix C). This was done in order to motivate individuals to respond the research.

After seeing the brand logo and its name, the following question was shown: 'do you know brand X?'. The 'yes' answer was mandatory to keep on answering the questionnaire, once an individual cannot assess brand authenticity when not knowing the brand. If the answer was 'no', the respondent was thanked and the questionnaire ended. For those who answered yes, two other questions followed: 'have you bought a product of brand X?' and 'do you regularly buy brand X?'. Those questions make it possible to address which respondents are users or non-users of the brand.

The following statements were based on the brand randomly shown in the beginning of the questionnaire, which were presented in every question in order to prevent forgetfulness. Statements were established on a seven-point Likert scale (1 = ‘strongly disagree’ and 7 = ‘strongly agree’). At the end of the questionnaire, respondents had to fill out demographic questions and leave their email (not mandatory).

The research sample is non-probabilistic, since it was obtained through accessibility. In Brazil, the online survey was sent by email to university databases, containing 10.000 people from all over states. Also, online surveys were carried out in the United States through Amazon Mechanical Turk (MTurk). Those countries were chosen in order to analyze possible different outcomes across cultures (Fritz et al., 2017). Data collection was conducted in November and December of 2018. The analysis units were individuals who had prior knowledge of the brand shown in the online questionnaire. The sample comprised undergraduate and graduate students and faculty members of the universities who accepted to take part in the research.

3.1 CONSTITUTIVE AND OPERATIONAL DEFINITIONS OF VARIABLES

In this section the constitutive and operational definitions of the research variables are presented. The constitutive definition, or connotative, reflects the scientific definition, abstract statement of the variables to be studied whilst the operational definition highlights the process as such concepts were measured. Such definitions aid in clarity of terms in order to adequately understand the observed reality (Kerlinger, 1980; Marconi & Lakatos, 2010).

A) Term: Brand Authenticity

Constitutional definition: Brand authenticity is the relationship between the construction of brand attributes, which come from its core and are dictated by its supplier, and the individual's perception of those attributes. In fact, brand authenticity is nothing other than the conformation between the attributes of a brand itself and the capture of those attributes by the consumer; so the brand authenticity is necessarily composed by two terms: prominent authenticity (vendor) and perceived authenticity (brand assessed by individuals).

Operational definition: Brand authenticity was measured with the instrument prepared, based on (Akbar & Wymer, 2017; Bruhn et al., 2012; Kososki, 2015; Kososki & Prado, 2017; Ilic & Webster, 2016; Morhart et al., 2014; Napoli et al., 2014; Spiggle, et al., 2012) and after the expert's refinement of items (see Appendix C). The instrument employed a seven-point Likert scale (1 = 'strongly disagree' and 7 = 'strongly agree'). Also, as a means of checking to assess perceptions of authenticity, a one-item authenticity question was used at the end of the questionnaire: 'When you think about what it means to be truly authentic, what would you say about this brand?', 1 = 'inauthentic and 7 = 'authentic') seven-point Likert by Newman & Dhar (2014).

B) Term: Brand Attitude

Constitutional definition: Although the concept of attitude is broad and used in different contexts, the choice for this work is the one proposed by Fishbein and Ajzen (1975, p.222) "A person's attitude is a function of his salient beliefs at a given point in time." The term 'attitude', derived from Social Psychology (Thurstone, 1931), is used to refer to a general feeling, for instance as an individual's overall evaluation of a concept which may be positive or negative (Fazio, 1986). An attitude is a predisposition to learn in order to respond favorably or unfavorably to something and can be shaped directly by the experiences or information received (Blackwell, Miniard & Engel, 2005; Fishbein, 1980; Lutz, 1981; Park et al., 2010; Russell, 2002).

Operational definition: Attitude toward the brand (Russell, 2002) was measured by the mean of 2 items good-bad (1 = 'very bad' and 7 = 'very good') seven-point Likert scale and dislike very much – like very much (1 = 'dislike extremely' and 7 = like extremely').

C) Term: Brand Loyalty

Constitutional definition: Aaker (1991, p. 39) defines brand loyalty as "the attachment that a customer has to a brand." It refers to the ability of being loyal to a specific brand, which is shown by the purchase intention of the brand as a primary choice (Oliver, 1997; Yoo and

Donthu, 2001).

Operational definition: brand loyalty was measured on a three-item (1. I consider myself to be loyal to this brand; 2. This brand would be my first choice; 3. I will not buy other brands if this brand is available at the store) on a seven-point Likert scale (1 = 'strongly disagree' and 7 = 'strongly agree') based on the study by Yoo and Donthu, 2001.

D) Term: Word-of-mouth (WOM)

Constitutional definition: Given the many options found by consumers and the intangibility of services, new buyers solicit the opinion of experienced individuals, who provide their assessments (positive or negative) based on their personal experiences. Word-of-mouth has been found to decrease customers' perception of risk and increase their intention to buy (Crocker, 1986; File, Judd & Prince, 1992). Stern (1994) defined WOM as:

The exchange of ephemeral oral or spoken messages between a contiguous source and a recipient who communicate directly in real life. Consumers are not assumed to create, revise and record pre-written conversational exchanges about products and services. Nor do they ordinarily use poetry or song to discuss consumption. Finally, WOM communication vanishes as soon as it is uttered, for it occurs in a spontaneous manner and then disappears. (Stern, 1994, p. 7)

Operational definition: Word-of-mouth behavior was measured on a single-item: 'Will you tell your friends and acquaintances positive things about this brand?' on a seven-point Likert scale (1 = 'definitely not and 7 = 'definitely yes'), based on the study by Cheema and Kaikati, (2010).

F) Term: Purchase Intention

Constitutional definition: The willingness of a customer to buy a certain product or service (Newman & Dhar, 2014).

Operational definition: Purchase intention behavior was measured on a single-item: 'How likely would you be to purchase a product of this brand or use its services?' (1 = 'Very Unlikely' and 7 = 'Very Likely') on a seven-point Likert scale, based on the study by Newman and Dhar, (2014).

G) Term: Brand Image

Constitutional definition: Brand image, one of the dimensions of the CBBE (Keller, 1993), is associated to the meaning that the brand offers to the consumer (Kapferer, 2003; McCracken, 1986). The image is composed of a set of associations that incorporate types of favoritism (perceived associations in front of the brand image), strength and uniqueness.

Operational definition: Brand image was measured on a three-item (1. Some characteristics of the brand come quickly to my memory; 2. I can quickly recognize the symbol (or logo) of the brand; 3. I have trouble remembering the brand in my mind) on a seven-point Likert scale (1 = 'strongly disagree' and 7 = 'strongly agree'), based on the study by Washburn and Plank, (2002).

H) Term: Brand Personality

Constitutional definition: Aaker (1997, p. 347) defines brand personality as "the set of human characteristics associated with a brand". 'Brand personality is the set of human personality traits that are both applicable to and relevant for brands' (Azoulay & Kapferer, 2003, p. 151).

Operational definition: Brand personality was measured on a reduced scale ('When you think about personality traits, what would you say about the following traits being characteristic to the brand?' - 12 items: down to earth; stable; responsible; active; dynamic; innovative;

aggressive; bold; ordinary; simple; romantic; sentimental) on a seven-point Likert scale (1 = 'not characteristic at all' and 7 = 'very characteristic at all') based on the study by Geuens, Weijters and De Wulf, (2009).

Once the findings offer a new conceptualization of brand authenticity, as well as a reliable and valid scale, to measure consumer's perspective, its hierarchical structure was built upon the IRT model, which is discussed next.

I) Term: Genuineness

Constitutional definition: a brand that is real, candid and legitimate.

Operational definition: Brand authenticity might be measured on a means of a reduced scale developed on this work. By also providing an alternative measurement reduced named 'genuineness', constituted by four items (the brand is real, the brand is legitimate, the brand is truthful, the brand is genuine) academics and managers are able to rapidly signalize an authentic brand, through a faster but also, reliable instrument. And if want to further explore the construct, the overall scale might be used.

3.2 THE ITEM RESPONSE THEORY

The Item Response Theory (IRT), also called latent trait theory, is an advanced test theory that has been accepted as a better alternative to the Classical Test Theory (CTT) in the areas of psychology and psychometric (Andersen, 1977; Birnbaum, 1968; Lawley, 1944; Lazarfeld, 1950; Lord, 1952; Rasch, 1960; Richardson, 1936; Tucker, 1946). Marketing literature has relied heavily on the application of CTT-based approaches for a long time (Singh, 2004). Studies using IRT in the marketing literature have been carried out since the beginning of the millennium and persist until today (Bayley, 2001; De Jong, Steenkamp & Fox, 2007; De Jong et al., 2008; Ewing, Salzberger & Sunkovic, 2005; Balasubramanian & Kamakura, 1989; Pereira & Pinto, 2011; Schultz, Salomo & Talke, 2013; Singh, 2004).

The IRT is a more sophisticated and precise methodology that allows for the evaluation of the punctual, but above all, the construction of scales of skills or behaviors. This

methodology has been progressively introduced in Brazil and the United States, such in the Exame Nacional do Ensino Médio (ENEM) and the Test of English as a Second Language (TOEFL) tests, for skills assessments, as it is a powerful instrument in the quantitative educational evaluation processes, specially for complex survey applications (Thomas & Cyr, 2002). It suggests ways of representing the relationship between the probability of a subject giving a certain response to an item and its latent traits, proficiencies, skills or behaviors in the assessed knowledge area (Marques, 2008).

The latent trait model is based on accurate test scores and also on the development of its items. It is possible to measure various types of respondent's abilities, such as: mathematical ability, personality traits of an individual, or even an individual's behavioral traits such as his buying tendency (Xinming & Yiu-Fai, 2014). The evaluation of behaviors in relation to a brand, especially in relation to its authenticity, is the idea of using the latent trait model to evaluate the hierarchical structure of items of brand authenticity composition.

The measurement instruments developed up to the present (Akbar & Wymer, 2017; Bruhn, et al., 2012; Kososki, 2015; Ilic & Webster, 2016; Morhart et al., 2014; Napoli et al., 2014; Spiggle, et al., 2012) are based on classical scaling models such as Churchill (1979) and Netemeyer (2003). The construction of scales relies on procedures that begin in the conceptualization of the construct, advance in the generation of items of the scale with the evaluation of specialists, and finish in the collection and analysis of data (Churchill, 1979; Mackenzie, Podsakoff & Podsakoff, 2011; Netemeyer, 2003). Such process presents psychometric properties and aims to ensure that the new proposal is structured with the appropriate construct dimensions, as well as to ensure that it is reliable and valid (Churchill 1979, Cronbach 1951; Lee & Hooley, 2005; Nunnally, 1967).

However, the scales constructed according to the procedures presented, are based on the total sum of their items, without considering that they may have different "intensities". In this sense, since they can represent different "intensities", they can contribute with different weights in the measurement of a construct, in the IRT perspective (Pereira & Pinto, 2011). Fletcher (1994) corroborates such idea, affirming the importance of IRT in providing invariant measures of performance. That is, they do not depend on the items that make up the measuring instrument, or on the subjects of the sample. In such a manner, IRT considers the characteristics of each item, not just its sum. Thus, it is possible to verify its latent trait, that is, the unobservable hypothetical variable. The IRT is based on two main axioms: the

performance of the subject in a task, which is the set of latent traits; and the relationship between such performance and the latent traits that results in the Item Characteristic Curve (ICC) (Lou, 2015; Pereira & Pinto, 2011).

Accordingly, consumer judgment is determined by the gap between the consumer's expectation and the value a brand provides. Namely, consumers are characterized by their expectations, comparable to the latent traits in psychological measurements while brands are characterized by the value they provide and their latitude of acceptance, correspondents of item inception and discriminating parameters, respectively (De Jong, Steenkamp, Fox & Baumgartner, 2008; Moutinho & Meidan, 2005; Pereira & Pinto, 2011).

Besides, the classic psychometry is test-dependent, because it depends on the items that compound the measurement instrument and also subject-dependent, once it is based on the research respondents. For instance, the classic theories do not take into account respondents' skills, i.e., while one might performance the task more consistently, others might not. So, the IRT models eliminate such problems (Embretson & Reise, 2000; Hambleton & Swaminathan, 1991; Pasquali, 2003).

By adopting traditional scale development methods as well as the Item Response Theory, it is argued that their capabilities augment the current measure development paradigm (Balasubramanian & Kamakura, 1989; Kim, Laroche, Toffoli & Tomiuk, 2015; Lou, 2015). Once: "Valid measurement is a cornerstone of marketing as a science." (De Jong et al., 2008, p. 104) and the main problem regarding classic theories is the validity of the scale as Thurstone, in 1928, wrote:

A measuring instrument must not be seriously affected in its measuring function by the object of measurement. To the extent that its measuring function is so affected, the validity of the instrument is impaired or limited. If a yardstick measured differently because of the fact that it was a rug, a picture, or a piece of paper that was being measured, then to that extent the trustworthiness of that yardstick as a measuring device would be impaired. Within the range of objects for which the measuring instrument is intended, its function must be independent of the object of measurement. (Thurstone, 1928, p. 547)

3.2.1 Advantages

The IRT offers two main characteristics that may not be found using the classic approach: the first one refers to the performance of the subject in a task (test item), which is explained by a set of latent factors or traits, i.e., performance is the effect and latent traits are the cause. The second refers to the relation between the performance in the task and the set of latent traits that can be described by an increasing monotonic equation, called ICC (Item Characteristic Function or Item Characteristic Curve) (Hambleton, 1993; Hambleton, Swaminathan & Rogers, 1991; Marques, 2008; Pasquali, 2003).

In summary: 1. The performance of the subject in a task (test item) can be predicted from a set of factors or hypothetical variables: the latent skills or traits; 2. The relationship between performance and traits can be described by a growing monotonic mathematical equation, called the Item Characteristic Curve - ICC (see Figure 4) (Pasquali, 2003; Marques, 2008).

The next sections will show the IRT models and the parameters estimation procedure.

3.2.2 IRT models

Although there are ilimited number of models that can relate an item to its measurement, in practice, there are three that stand out, based on the number of parameters to be considered: a one, two or three-parameter model (Birnbbaum, 1968; Hambleton, 1993; Lord, 1980; Pasquali, 2003; Rasch, 1960; Wright, 1977). The one-parameter model (1PL) takes into account the item difficulty; the two-parameter (2PL) the item difficulty and discrimination and the three-parameter (3PL) the difficulty, discrimination and the correct response given, i.e. guessing a ‘pseudo-parameter’, also called as the random guessing parameter (Birnbbaum, 1968; Thorpe & Favia, 2012).

The three-parameter model (3PL), by (Birnbbaum, 1968; Lord, 1980):

$$P_i(\theta) = c_i + (1 - c_i) \frac{e^{Da_i(\theta - b_i)}}{1 + e^{Da_i(\theta - b_i)}}$$

where $i = (1, 2, 3, \dots n)$

- ‘ $P_i(\theta)$ ’ is the probability of authenticity characteristic i be indicated by subject j for a global brand authenticity intensity q ;
- ‘ e ’ equals 2,72
- ‘ D ’ equals 1,7
- a_i is the discriminant parameter (or slope) of authenticity characteristic i , corresponding to the slope of the tangent line at the point b_i .
- ‘ b_i ’ is the position parameter of authenticity characteristic i , measured at the same scale of global authenticity intensity;
- ‘ C_i ’ is the parameter that represents the respondent’s low ability of response, i.e., the random guessing parameter;
- ‘ n ’ is the number of items of the test.

3.2.3 Estimation of the Parameters

The estimation of the parameters, called ‘calibration’, is one of the most important stages of IRT. The probability of a correct response to a given item depends both on the abilities of the subjects and on the parameters that characterize the items. In general, both are unknown and only the subjects' responses to test items are known. In order to estimate the parameters of the items and the abilities of the individuals, simultaneously, some approaches might be used. (Samejima, 1973; Pasquali, 2003).

The first approach, the ‘joint maximum likelihood’ method yields maximum likelihood estimates; the second one, the ‘marginal maximum likelihood’, yields maximum likelihood of item parameters and the third one, the ‘Bayesian’ one, where parameter estimates are usually the mode or mean of the posterior distribution of the parameter estimated (Lord et al., 1986; Mislevy & Bock, 1982; Pasquali, 2003; Swaminathan & Gifford, 1985).

In this dissertation, the three-parameter model (3PL or Bayesian) was used in order to unveil the brand authenticity hierarchical structure. It was considered the most adequate model to analyze brand authenticity’s hierarchical structure once the ‘ c ’ parameter can be used as the guessing parameter response and it requires the specification of the models based on prior distributions for parameters (Wang & Finn, 2012).

The IRT complements the measures developed by the classical test theory. One of the limitations of classical test theories is that the characteristics of the item and the individual are

not noticeable. This limitation makes it difficult to assess persons' abilities using different forms of testing. However, in TRI, item characteristics and personal skills are formulated by different parameters. Also, the accuracy of the measurement is the same for all the scores of a specific sample, which is represented by information curves. Furthermore, in CTT, missing values are difficult to manipulate during test development. On the other hand, IRT makes it simple to analyze items that have randomly lost data. In short, the IRT procedure calibrates items that may have different response models, performs multidimensional exploratory and confirmatory analysis and runs multi-group analysis (De Ayala, 2009; Edelen & Reeve, 2007; Hambleton, Swaminathan & Rogers, 1991).

3.3 SAMPLE SIZE

As mentioned by Morizot and colleagues: “there is no gold standard or magic number that can be proposed” (Morizot et al., 2007, p. 411). However, it is suggested by experts (Bond & Fox, 2007; Morizot et al., 2007; Reeve & Fayers, 2005; Thorpe & Favia, 2012) that around 500 respondents, at least, are recommended to the 2PL or 3PL model, in order to find accurate parameter estimates in polytomous data, i.e., data with a 5 point Likert scale format. As for such situation, the plotted lines, in the ICC Curve, become almost identical with sample over 500 respondents. “Convergence is better for the 1PL model especially above a sample size of 500. The 3PL item difficulties are slightly less convergent than those for the 2PL model, but the differences are not large.” (Stone & Yumoto, p. 12, 2004).

The Brazilian data, initially, comprised 1.147 responses. Some steps were followed in order to clean the data, and responses that did not meet the requirements, were excluded, as follows: 1. missing values; 2. responses that did not meet an average time response of at least 400 seconds; 3. responses that did not pass on the attention check question 4. very low or zero standard deviation among responses. After those procedures, the final Brazilian sample resulted in 567 valid cases. The same guidelines were followed for the American sample. The original data comprised 1.081 responses and after the cleaning process, it ended up in 721 valid cases. These numbers represent sufficed data for using the IRT model, according to literature (Bond & Fox, 2007; Morizot et al., 2007; Reeve & Fayers, 2005; Thorpe & Favia, 2012).

4 RESULTS

The main goal of this dissertation is to redefine brand authenticity concept by proposing its critical dimensions, through a hierarchical structure, made possible by the Item Response Theory Model. The next sessions will describe the results found on this work.

4.1 SOCIODEMOGRAPHIC CHARACTERIZATION OF RESPONDENTS

The mean average age of the interviewees was 25 years old ($SD = 23.35$), with a minimum of 18 and a maximum of 65 years old. The predominant social classes were C and D, which is characterized by low incomes (0-3 Brazilian minimum wages R\$937,00) and almost the totality of respondents were native Portuguese speakers (99.6%) and 100% lived in Brazil. 47% of the individuals held a high school degree as their highest degree of education and were undergraduate students. 8 individuals reported to have mental or physical disabilities. Regarding the gender, the sample consisted mostly of females 63% ($SD = .49$). Table 4 summarizes the main sociodemographic characteristics of the Brazilian ($n = 567$) sample.

Table 4
Sociodemographic characteristics of Brazilian respondents

Characteristic	BR							
	n	%	mean	median	st. deviation	variance	Sk	K
Gender			1.63	2	0.49	0.24	-0.51	-1.62
Female	358	63						
Male	209	36.8						
Other	1	.02						
Age			294.789	28	8.88	78.94	0.79	0.66
Under 18	4	.04						
18-24	203	35.7						
25-34	213	37.5						
35-44	108	19.1						
45-54	34	6.2						
55-64	4	.08						
Over 65	1	.02						
Country of residence			1	1	0.00	0.00		
Brasil	568	100						
USA	NA	NA						
Other	NA	NA						
Mother language			1.01	1	0.12	0.01	16.81	281.49
Portuguese	566	99.6						

(Continued)

(Continued)

English	NA	NA						
Other	2	.04						
Education			2.71	3	0.84	0.70	1.41	2.76
High school degree	264	47						
Bachelor's degree	231	40.7						
Master's degree	17	3						
Professional degree	49	8.6						
Doctorate	5	.9						
Mental/physical disabilities			1.99	2	0.12	0.01	-8.27	66.61
Yes	8	1.4						
No	560	98.6						
Income			3.48	3	1.00	1.00	0.65	0.61
None	6	1.1						
(R\$937)/month	59	10.4						
(R\$2811) /month	264	46.5						
(R\$5622)/month	167	29.4						
(R\$9370)/month	40	7						
R\$10.307	32	5.6						

Note. Sk = Skewness, K = Kurtosis

The mean average age of the interviewees was 36 years old (SD = 18.43), with a minimum of 25 and a maximum of 81 years old. The predominant social classes were B and C, and 80% of respondents were native English speakers and 100% lived in the United States. 73.4% of the individuals held a bachelor's degree as it highest degree of education and 12.8% held a masters' degree. 96 individuals reported to have mental or physical disabilities, which represents 13.3% of the sample. Regarding the gender, the sample consisted equally of females (52.3%) and males (47.6%). Table 5 summarizes the main sociodemographic characteristics of the American samples (n = 721).

Table 5
Sociodemographic characteristics of American respondents

USA								
Gender	n	%	mean	median	st. deviation	variance	Sk	K
Female	377	52.3	1.53	2.00	0.50	0.25	-.07	-1.91
Male	343	47.6						
Other	1	0.1						
Age								
Under 18	NA	NA	38.35	35.00	12.71	161.53	0.75	-0.09
18-24	78	10.8						
	258	35.7						

(Continued)

(Continued)

25-34	176	24.4						
35-44	111	15.3						
45-54	71	9.9						
55-64	27	3.6						
Over 65								
Country of residence	NA							
Brasil	721	100	1.00	1.00	0.00	0.00		
USA								
Other								
Mother language	NA							
Portuguese	576	80	1.03	1.00	0.25	0.06	7.74	58.46
English	144	20						
Other								
Education	82	11.4						
High school degree	529	73.4	4.29	5.00	1.35	1.81	-0.14	-0.59
Bachelor's degree	92	12.8						
Master's degree	7	1						
Professional degree	11	1.5						
Doctorate								
Mental/physical disabilities	96	13.3						
Yes	625	86.7	1.87	2.00	0.34	0.12	-2.16	2.69
No								
Income	NA	NA						
None	NA	NA	3.52	4.00	1.53	2.34	0.02	-0.96
(R\$937)/month	131	18.2						
(R\$2811) /month	322	44.6						
(R\$5622)/month	187	26						
(R\$9370)/month	81	11.24						
R\$10.307								

4.2 EXPLORATORY FACTOR ANALYSIS

In addition to experts' face validity and the pre-test, exposed on the previous chapter, there was a need for further quantitatively testing. The first step of scale purification consists in reporting Cranach's alpha and running an Exploratory Factor Analysis (EFA) through the 74 brand authenticity items resulting from the experts' refinement.

The three samples (Brazilian, American and Brazilian + American) were analyzed using maximum likelihood extraction methods, followed by oblique (direct oblimin) rotations. The oblimin rotation was used since orthogonal (varimax) analysis would not be pertinent to independent dimensions. Exploratory factor analysis (EFA) with oblimin rotation with 15 fixed factors (eigenvalues > 1) was performed to the three samples: Brazilian and

American separately and Brazilian and American put together. Cross-loading items, items with loadings < 0.4 or that failed to exhibit a simple factor structure on any one factor were excluded. This resulted in the deletion of eleven items : CR5 *the brand accomplishes its value promise*, CR6 *the brand performs according to consumers' expectations*, CR7 *the brand inspires beliefs*, DE1 *the brand's design is timeless*, NO2 *the brand reminds me of a specific moment in my life*, QC1 *the brand uses high quality standards in its manufacturing processes, which are not easily copied*, QC4 *the brand is always improving quality*, QC *the brand is the best in its category*, QC6 *the brand differs from others by its high level of quality*, QC7 *the brand maintains its characteristics over time without essential changes*, SI5 *the brand wants consumers to understand its weaknesses*, SI6 *the brand cares about openness in close relationships with consumers*.

The set of remaining 63 items reflected a fifteen factor solution and were interpreted in light of the literature. The dimensions are *continuity* (the brand is stable and timeless), *symbolism* (symbolic quality of the brand that allows consumers to define who they), *heritage* (the brand has an engaging story built on long-held traditions), *credibility* (the brand has the ability to fulfill the claims it makes), *quality commitment* (the brand has stringent quality standards), *integrity* (the brand has moral towards consumers), *originality* (the brand is particular and innovative), *sincerity* (the brand is honest), *design* (the brand maintains its original design and does not follow trends), *craftsmanship* (the brand is committed to art in the manufacturing process), *nostalgia* (the brand connects consumers with the past), *origin* (the brand reflects aspects its foundations) *corporate social responsibility* (the brand shows commitment to sustainable development for present and future generations) *self-authenticity* (the brands helps consumer's internal needs) and genuineness (the brand is unique and real).

The structure accounted 74% of the variance (see Table 6) for the American and Brazilian merged sample, which is consistent with the other two samples (72% for the Brazilian and 77% for the American sample), see Appendix K.

Table 6
Total variance explained for Brazil and USA merged sample

Factor	Total	% of Variance	Cumulative %
1 credibility	30.106	41.241	41.241
2 nostalgia	5.11	7	48.241
3 integrity	3.245	4.445	52.686
4 corporate social responsibility	2.591	3.549	56.235
5 heritage	2.316	3.173	59.408
6 craftsmanship	1.578	2.162	61.57
7 design	1.365	1.869	63.439
8 origin	1.269	1.739	65.178
9 self-authenticity	1.2	1.643	66.821
10 genuineness	1.124	1.539	68.361
11 originality	1.061	1.453	69.814
12 symbolism	0.887	1.215	71.029
13 continuity	0.87	1.191	72.22
14 sincerity	0.851	1.166	73.386
15 quality commitment	0.715	0.98	74.366

Also, a check of Cronbach's alpha was carried out through each set of dimensions, to each sample, to investigate the items' internal consistency, Tables X to X (Dagger et al., 2007; Hair et al., 2010; Tian et al., 2001). The Cronbach's alpha for the 15-item scale was .952 ($n = 1288$), which is within Nunnally's (1978) guidelines for scale development.

The first factor corresponds to the 'continuity' dimension (four items $\alpha = .84$), the second captures the 'craftsmanship' dimension (three items $\alpha = .86$), the third represents the 'credibility' dimension (four items $\alpha = .90$), the fourth the 'corporate social responsibility' (five items $\alpha = .90$), the fifth the 'design' (four items $\alpha = .83$), the sixth the 'genuineness' (four items $\alpha = .87$), the seventh the 'heritage' (five items $\alpha = .85$), the eighth the 'integrity' (five items $\alpha = .93$), the ninth the 'nostalgia' (five items $\alpha = .90$), the tenth the 'origin' (four items $\alpha = .85$), the eleventh the 'originality' (five items $\alpha = .88$), the twelfth the 'quality commitment' (three items $\alpha = .95$), the thirteenth the 'self-authenticity' (five items $\alpha = .88$), the fourteenth 'sincerity' (three items $\alpha = .90$) and the fifteenth 'symbolism' (three items $\alpha = .88$).

The Cronbach's alpha for each of the dimensions is within Nunnally's (1978) guidelines and certifies the internal consistency of the brand authenticity scale. See Appendix K for complete values of the three samples.

In addition to the Cronbach's alpha coefficient, Hair and colleagues (2010) suggest two measures to verify the appropriateness of the sample: the Bartlett sphericity test and the Kaiser-Meyer-Olkin measure of sampling (KMO). If the values of the Bartlett test (Chi-

square) are high, with a significance of 0.05 or < 0.05 , there is an indication that the factorial analysis is adequate. As for the KMO, its value must be 0.6 or > 0.6 . The data resulting from the factorial analysis, for the three samples, is adequate, since the KMO values were 0.962, 0.979 and 0.979, respectively and the Bartlett values were ($X^2 = 31108.505$; 50108.375; 78018.715 with $p = 0.00$) shown on Table 7 (Kaiser, 1958).

Table 7
Kaiser-Meyer-Olkin and Bartlett's test of sphericity

	BR	USA	BR + USA
KMO	0.962	0.979	0.979
Chi-Square	31108.505	50108.375	78018.715
df	2628	2628	2628
Sig.	0	0	0

Continuity (four items $\alpha = .84$) registered CO1 and CO4 (.52) with lower loadings among the four items while CO2 had the higher loading (.74), as seen on Table 8. CO2 refers to the ability of the brand to be permanent, i.e., to be immutable over time regarding product quality, services standards and values. Continuity, then, is a temporal factor. The initial structure of four items was maintained after the EFA. This dimension is already consolidated on the brand authenticity literature and corresponds to the distance brands keep from current trends (Bruhn et al, 2012; Morhart et al, 2014).

Table 8
EFA and internal consistency of brand authenticity ‘continuity’ factor

	alpha	.74	.89	.84
Continuity		BR	US	BR + US
CO1	The brand maintains itself over time without essential changes.	.49	.63	.52
CO2	The brand is timeless.	.48	.60	.74
CO3	The brand survives times.	.47	.67	.6
CO4	The brand survives trends.	.45	.67	.52

Craftsmanship (three items $\alpha = .86$) registered CP1 (.81) and CP2 (.82) with higher loadings among the three items while CP3 had the lower loading (.55), as seen on Table 9. The early dimension was composed by 6 items. After the factor analysis, the items CR5 ‘the brand accomplishes its value promise’, CR6 ‘the brand performs according to consumers’ expectations’ and CR7 ‘the brand inspires beliefs’ were eliminated.

The lowest loading for CP3 ‘only the finest ingredients/materials are used in the manufacture of this brand’ may have occurred due to fact that this work contemplated, mostly, mass produced brands, technology and services. Such characteristics “fine ingredients and materials” reflect specially luxury brands. CP1 ‘the brand preserves handmade elements in its manufacturing process’ and CP2 ‘it feels like artisan skills and customized manufacturing processes have been retained in the production of this brand’, not necessarily derive from high-end brands. Heineken, the beer label, for example, has in its portfolio, craft beers, which derive from handmade, and artisan making processes. Also, for technology companies, such as Amazon, the workforce once implemented by craftsman productions are substituted by “soft technologies” (Levitt, 1981).

Table 9
EFA and internal consistency of brand authenticity 'craftsmanship' factor

Craftsmanship		alpha	.78	.90	.86
			BR	US	BR + US
CP1	The brand preserves handmade elements in its manufacturing process.		.90	.72	.81
CP2	It feels like artisan skills and customized manufacturing processes have been retained in the production of this brand.		.88	.71	.80
CP3	Only the finest ingredients/materials are used in the manufacture of this brand.		.84	.63	.55

Credibility (fours items $\alpha = .90$) registered CR1, CR2 and CR3 (.42) and CR4 (.40) loadings as seen on Table 10. The items loadings are lower compared to other dimensions. On the other hand, ‘credibility’ had a high value of Cronbach’s alpha, which guarantees the dimension internal consistency. Credibility means being true to consumers by connecting actual behavior to clear marketing messages to fulfill the claims it makes and avoid consumer rejections (Carroll & Wheaton, 2009; Grazian, 2003; Morhart et al., 2014).

Table 10
EFA and internal consistency of brand authenticity 'credibility' factor

Credibility		alpha	.91	.89	.90
			BR	US	BR+ US
CR1	The brand delivers what it promises.		.61	.53	.42
CR2	The brand is trustworthy.		.54	.57	.42
CR3	The brand makes reliable promises.		.52	.51	.42
CR4	The brand embodies what I believe in.		.49	.58	.40

Corporate social responsibility (five items $\alpha = .90$) registered CS4 (.84) as the highest loading and CS5 (.58) as the lowest, as seen on Table 11. This dimension refers to the company's acts in a socially responsible manner, through an holistic view of the brand's impact on stakeholders. Brand acts must have proximity to customers, and its worthy causes must be part of its identity (Alhouti, 2016; Beckman et al., 2009; McShane & Cunningham, 2012). The item CS5 'the brand has a preference for natural processes and materials' might not be adequate for some brands in the survey, such as technology brands, which might have caused the lowest loading among the CSR items.

Table 11
EFA and internal consistency of brand authenticity 'corporate social responsibility' factor

Corporate Social Responsibility		alpha	.89	.90	.90
			BR	US	BR+ US
CS1	The brand believes in giving to worthy causes.		.82	.70	.79
CS2	The brand wants a "better tomorrow".		.76	.60	.71
CS3	The brand is concerned about environmental issues.		.81	.68	.79
CS4	The brand is involved in community activities.		.85	.82	.84
CS5	The brand has a preference for natural processes and materials.		.67	.43	.58

Design (four items $\alpha = .83$) registered DE2 and DE4 (.74) as the highest loadings and DE3 (.48) as the lowest, as seen on Table 12. The original group was composed of five items. The item DE1 'the brand's design is timeless' did not load on the dimension and was excluded. DE2 'The brand's design is unique' and DE4 'the brand has unique design features that are not easily imitable' are similar in meaning, specially due to the use of the term 'unique' on both factors. This synonym overlapping might have caused similarities on the items. On the other hand, DE3 'despite innovating the brand retains its original design features in its products' and DE5 'the brand focuses on the design of its products' mention products. Customers, when think about design, immediately think of tangible aspects of a product. However, design might, also, be related to the environment where a service is performed, providing experiences, as well as symbols such as logos (Okonkwo, 2007).

Table 12
EFA and internal consistency of brand authenticity 'design' factor

Design		alpha	.8	.86	.83
			BR	US	BR + US
DE2	The brand's design is unique.		.8	.74	.74
DE3	Despite innovating, the brand retains its original design features in its products.		.46	.43	.48
DE4	The brand has unique design features that are not easily imitable.		.68	.64	.74
DE5	The brand focuses on the design of its products.		.67	.70	.64

Genuineness (four items $\alpha = .87$) registered GE1 (.89) as the highest loadings and GE3 (.42) as the lowest, as seen on Table 13. Genuineness express the whole meaning of authenticity, being real, legitimate, free of imitations. The item GE3 'the brand is candid' had the lowest loading due to the fact, perhaps, of the word 'candid' which represents sincere. Some individuals might not have fully understood the term. Due to that, the term 'candid' was substituted by 'truthful'. Despite this item, the four dimensions had a high Cronbach's alpha, which guarantees validity to the factor.

Table 13
EFA and internal consistency of brand authenticity 'genuineness' factor

Genuineness		alpha	.86	.87	.87
			BR	US	BR + US
GE1	The brand is real.		.83	.86	.89
GE2	The brand is legitimate.		.84	.77	.84
GE3	The brand is candid.		.53	.46	.42
GE4	The brand is genuine.		.7	.71	.75

Heritage (five items $\alpha = .85$) registered HE4 (.54) as the highest loadings and HE2 (.48) as the lowest, as seen on Table 14. The initial structure with five items was maintained. Heritage is defined as the position that the brand occupies in accordance with its past, present and future history (Brown et al, 2003; Penãloza, 2000; Postrel, 2003).

Table 14
EFA and internal consistency of brand authenticity 'heritage' factor

Heritage		alpha	.84	.85	.85
			BR	US	BR + US
HE1	The brand is characterized by its own history.		.46	.65	.49
HE2	The brand promises are closely linked to its tradition.		.46	.47	.48
HE3	The brand promises are transmitted over time.		.45	.52	.53
HE4	The brand manages the tough times as well as the good times.		.48	.41	.54
HE5	The brand transmits security: it won't disappear tomorrow.		.53	.52	.52

Integrity (five items $\alpha = .93$) registered IN2 (.77) as the highest loadings and IN3 (.62) as the lowest, as seen on Table 15. Brand's integrity represents its core values, motivated by actions of caring and responsibility towards a consumer and its virtuous communications (Beverland & Farrelly, 2010; Boyle, 2004; Morhart et al., 2014). The germinal composition of five items was maintained after the exploratory analysis.

Table 15
EFA and internal consistency of brand authenticity 'integrity' factor

Integrity		alpha	.87	.91	.90
			BR	US	BR + US
IN1	The brand has strong moral principles.		.83	.5	.75
IN2	The brand has embedded values.		.71	.75	.77
IN3	The brand has never disappointed me in relation to its values.		.64	.54	.62
IN4	The advertising campaigns of the brand represent its values.		.66	.69	.68
IN5	The brand maintains its principles regardless the scenario.		.75	.67	.76

Nostalgia (five items $\alpha = .90$) registered NO1 (.90) as the highest loadings and NO5 (.70) as the lowest, as seen on Table 16. The item NO2 'the brand reminds me of a specific moment in my life,' did not load on the pattern and was eliminated. NO1 'the brand reminds me of a specific place in my life' represents the most objective item of all five. Thus, it might be easier for individual to assess objective cues of nostalgia, such places, once nostalgia is based upon memory and imagination (Hede & Thyne, 2010). On the other hand, the remaining four items, explicit the existentialist perspective of the factor. Nostalgia is described as an affectionate feeling for a former time, which is represented, by objects, moments, places, people, which generates a sense of melancholy; it is a link to past feelings (Belk, 1990; Beverland et al., 2009; Morhart et al., 2014).

Table 16
EFA and internal consistency of brand authenticity ‘nostalgia’ factor

Nostalgia		alpha	.93	.93	.93
			BR	US	BR + US
NO1	The brand reminds me of a specific place in my life.		.87	.85	.90
NO3	The brand reminds me of something important I've done in my life.		.84	.64	.76
NO4	The brand reminds me of an important person in my life.		.88	.69	.82
NO5	The brand has a strong link to the past. which is still perpetuated to this day.		.69	.67	.70
NO6	The brand reminds me of a golden age.		.78	.73	.78

Origin (four items $\alpha = .85$) registered ON4 (.94) as the highest loadings and ON3 (.72) as the lowest, as seen on Table 17. The items of ‘origin’ were pretty consistent. It is well consolidated by literature (Athwal & Harris, 2018; Newman & Dhar, 2014) and represent the brand’s roots: “where it all began”, which is conveyed by timelessness. It resembles the brand early stages suggesting to consumers that the product or service still carries its original features (Newman & Dhar, 2014; Venkatesh, Joy, Sherry, & Deschenes, 2010).

Table 17
EFA and internal consistency of brand authenticity 'origin' factor

Origin		alpha	.86	.93	.90
			BR	US	BR + US
ON1	The brand reflects the essential characteristics of its place of origin.		.85	.92	.91
ON2	The brand is rooted with values from its place of origin.		.79	.89	.87
ON3	The brand uses in its manufacturing process products from its place of origin.		.68	.76	.72
ON4	The country of origin of the brand represents its true essence.		.89	.94	.94

Originality (five items $\alpha = .88$) registered OY4 (.69) as the highest loadings and OY2 (.51) as the lowest, as seen on Table 18. Originality makes reference, specially to uniqueness, i.e. being able to innovate, introduce something novel and creative to the market, which is not easily imitable (Beverland, 2009; Bruhn et al., 2012; Carroll & Wheaton, 2009; Gilmore & Pine, 2009). By comparing the five items, it is noted that all of them carry a sense of innovation affirmed by adjectives such as: pioneer, innovative, unique, and different.

Table 18
EFA and internal consistency of brand authenticity ‘originality’ factor

Originality		alpha	.86	.90	.85
			BR	US	BR + US
OY1	The brand is pioneer		.67	.68	.67
OY2	The brand is innovative.		.5	.53	.51
OY3	The brand is unique in everything it does.		.7	.47	.57
OY4	The brand is different from all other brands.		.68	.57	.69
OY5	The brand makes me feel different from other brands when I consume it.		.53	.44	.54

Quality commitment (three items $\alpha = .95$) registered QC2 (.47) as the highest loadings and QC6 (.42) as the lowest, as seen on Table 19. Initially the dimension was composed by seven items, but four of them had low loadings and were moved to a different dimension. Thus, the items QC1 ‘the brand uses high quality standards in its manufacturing processes, which are not easily copied’, QC4 ‘the brand is always improving quality’, QC5 ‘the brand is the best in its category’ and QC7 ‘the brand maintains its characteristics over time without essential changes’ were cut out. Quality commitment refers to whether the brand demonstrates expertise in its manufacturing processes, which are maintained continuously through rigorous standards (Beverland, 2005; Gilmore & Pine, 2007; Napoli et al., 2014).

Table 19
EFA and internal consistency of brand authenticity 'quality commitment' factor

Quality Commitment		alpha	.88	.88	.88
			BR	US	BR + US
QC2	The brand provides high quality in its products or services. i.e. quality is central to the brand.		.48	.54	.47
QC3	The brand provides consistent quality over time.		.47	.54	.43
QC6	The brand differs from others by its high level of quality.		.46	.52	.42

Self-authenticity (five items $\alpha = .88$) registered SA2 (.92) as the highest loadings and SA5 (.70) as the lowest, as seen on Table 20. The dimension maintained its original structure. This dimension has aspects of existentialism once consumers experience brands to connect with their life aspirations and then feel “self-authored” when display or build a desired self (Beverland & Farrelly, 2010; Carroll & Wheaton, 2009).

Table 20

EFA and internal consistency of brand authenticity 'self-authenticity' factor

Self-Authenticity		alpha	.93	.96	.95
			BR	US	BR + US
SA1	The brand reflects who I am.		.85	.83	.88
SA2	The brand helps me to become the type of person I want to be.		.93	.81	.92
SA3	The brand helps me to build the "real me".		.86	.85	.89
SA4	I feel a strong sense of belonging to the brand.		.81	.78	.84
SA5	I can identify myself with the brand.		.59	.76	.70

Sincerity (three items $\alpha = .90$) registered SI3 (.47) as the highest loadings and SI2 (.42) as the lowest, as seen on Table 21. Initially the dimension was structured on five items. After the exploratory factor analysis, two items were deleted: SI5 'the brand wants consumers to understand its weaknesses' and SI6 'the brand cares about openness in close relationships with consumers.'

Table 21

EFA and internal consistency of brand authenticity 'sincerity' factor

Sincerity		alpha	.85	.90	.88
			BR	US	BR + US
SI1	The brand is honest.		.58	.49	.43
SI2	The brand communicates honestly.		.65	.49	.42
SI3	The brand is free from hypocrisy.		.60	.48	.47

Symbolism dimension (three items $\alpha = .88$) registered SY1 (.82) as the highest loadings and SY2 (.72) as the lowest, as seen on Table 22. SY1 'the brand adds meaning to people's lives' has the most proximity to the semantic concept of symbolism. Symbolism is the brand's means for the construction of individuals' identity by reflecting values and adding meaning to people's lives, i.e., the brand serves as a symbolic resource, to help build who consumers really are, being true to themselves (Morhart et al., 2014; Napoli et al., 2014).

Table 22
EFA and internal consistency of brand authenticity 'symbolism' factor

Symbolism		alpha	.89	.90	.90
			BR	US	BR + US
SY1	The brand adds meaning to people's lives.		.69	.67	.82
SY2	The brand reflects important values people care about.		.65	.56	.72
SY3	The brand connects people with what is really important.		.64	.59	.74

4.3 CONFIRMATORY FACTORIAL ANALYSIS (CFA)

A confirmatory factorial analysis (CFA) was performed on the merged sample, in each sample, in order to dictate the construct's validity and verify its composition once brand authenticity is a multidimensional structure. The model was estimated by Maximum Likelihood (ML) method (Dagger et al., 2007; Hair et al., 2010; Kososki & Prado, 2017; Tian et al., 2001).

Items that presented inadequate factor weights ($\lambda < .30$): SA1_5, OY1_1, GE1_1, GE1_2, GE1_3, GE1_4, CS1_5, CP1_3, CO1_1 were removed. The fit of the original model, named as Model 1, with fourteen dimensions, commitment to quality, continuity, credibility, design, heritage, integrity, symbolism, corporate social responsibility, craftsmanship, nostalgia, origin, originality, self-authenticity, genuineness and sincerity, was unsatisfactory. A series of models were tested in order to provide a better model fit. For better adequacy, the dimension 'genuineness' was cut out from Model 2, which guaranteed more satisfying results. The refined model, with fourteen dimensions, presented adequate fit to sample and explained 78% of the variance.

The Cronbach's alpha for the indicators show consistency ($> .70$) as it follows: commitment to quality (.78), continuity (.86), credibility (.75), design (.73), heritage (.76), integrity (.81), symbolism (.84), corporate social responsibility (.78), craftsmanship (.90), nostalgia (.90), origin (.81), originality (.76), self-authenticity (.73) and sincerity (.86), seen on Table X.

Tables 23 and 24 present the findings of the confirmatory factor analysis (CFA), average variance extracted (AVE), composite reliability (CR) and internal consistency (α) of the refined model applied to the three different samples (Brazilian $n = 567$, American $n = 721$, Brazilian + American $n = 1288$). The refined model presented an adequate fit in all the tested

samples. Model 1 results can be found on Appendix M.

The original model, with fifteen factors, showed $\chi^2 = 4677.31$ with 25543.00 degrees of freedom and $p < 0.001$. Regarding the other absolute adjustment indexes used in the study, it is observed that the CFI = .81, GFI = .80, AGFI = .79, NFI = .89, RMSEA = .038, RMR = .07 and TLI = .47 values are within those acceptable in the literature (Nunnally, 1967). AVE = .49 and CR = .78.

The structure with fourteen factors, resulted from Model 2, showed a significant $\chi^2 = 2366.56$ with 1183.00 degrees of freedom and $p < 0.001$. Regarding the other absolute adjustment indexes used in the study, it is observed that the CFI = .93, GFI = .92, AGFI = .92, NFI = .89, RMSEA = .042, RMR = .09 and TLI = .53 values are within those acceptable in the literature (Nunnally, 1967). AVE = .88 and CR = .87. As a reference of the composite reliability of the scale, the values of the CR were expected to be > 0.70 . As a reference of the explanatory power of each dimension, the AVE values were expected to be > 0.40 as shown on Table 23 and 24 (Nunnally, 1967).

Table 23
Model fit

Model 02												
	Sample	n	CFI	GFI	AGFI	NFI	RMSEA	RMR	TLI	AVE	CR	α
1	Brazil		.94	.90	.90	.88	.040	.09	.93	.51	.83	.82
2	USA		.93	.90	.91	.87	.041	.09	.91	.53	.85	.84
3	Brazil + USA		.93	.92	.92	.89	.042	.09	.93	.53	.88	.87

Note. CFI = comparative fit index, GFI = goodness of fit index, AGFI = goodness of fit index, NFI = normed fit index, RMSEA = root mean square error of approximation, RMR = root means square residual, TLI = non-normed fit index, AVE = average variance extracted and CR = composite reliability.

The results presented in Table 23 and 24 demonstrate that the model is consistent, even considering some AVE values below the recommended (0.50) but, still, within the tolerable limits. Furthermore, it is observed that the adjustment statistics of the model met the standard criteria for a structural equation model (SEM).

Table 24
Model adjustment statistics

Indicators	α			AVE			CR		
	BR	US	BR + US	BR	US	BR + US	BR	US	BR + US
Sample									
Sincerity	.73	.75	.86	.55	.53	.57	.68	.78	.80
Quality Commitment	.67	.85	.78	.55	.58	.52	.68	.76	.77
Originality	.68	.85	.76	.51	.53	.50	.87	.87	.91
Origin	.70	.66	.81	.51	.55	.61	.76	.78	.88
Nostalgia	.72	.79	.90	.54	.61	.50	.76	.79	.96
Integrity	.76	.80	.81	.57	.45	.50	.75	.78	.91
Heritage	.72	.69	.76	.69	.73	.73	.72	.71	.93
Design	.69	.81	.73	.50	.62	.57	.84	.88	.84
Corporate Social Responsibility	.74	.82	.78	.54	.51	.54	.67	.76	.85
Credibility	.72	.78	.75	.51	.51	.51	.65	.73	.73
Craftsmanship	.58	.72	.90	.66	.61	.41	.76	.80	.90
Continuity	.78	.80	.86	.61	.58	.70	.73	.75	.87

Note. α = Cronbach's Alpha, AVE = Average Variance Extracted, CR = Composite reliability

Correlations between the individual brand authenticity dimensions (continuity = .72, corporate social responsibility = .71, craftsmanship = .72, credibility = .72, design = .72, heritage = .66, integrity = .70, nostalgia = .64, origin = .68, originality = .68, quality commitment = .73, self-authenticity = .69, sincerity = .73, symbolism = .73) are positively related and significant, thus, support discriminant validity for all items, according to Table 25. Entries below the main diagonal are correlations between the latent variables, which must be lower than the main diagonal. For this model, all correlations were lower than the main diagonal.

Table 25
Descriptive statistics and correlation between latent variables

	Average	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	5.62	1.81	.72													
2	5.41	1.08	0.21	.71												
3	5.28	1.59	0.57	0.40	.72											
4	5.91	1.19	0.27	0.17	0.40	.72										
5	6.05	1.78	0.54	0.19	0.30	0.31	.72									
6	6.08	1.15	0.54	0.45	0.48	0.36	0.22	.66								
7	5.86	1.28	0.53	0.69	0.45	0.61	0.37	0.34	.70							
8	5.33	1.78	0.20	0.66	0.41	0.39	0.34	0.42	0.12	.64						
9	4.40	1.63	0.27	0.32	0.48	0.52	0.14	0.34	0.10	0.64	.68					
10	4.53	1.10	0.64	0.44	0.42	0.60	0.25	0.45	0.21	0.52	0.41	.68				
11	4.75	1.67	0.60	0.44	0.62	0.61	0.32	0.47	0.42	0.59	0.44	0.42	.73			
12	4.46	1.41	0.37	0.56	0.53	0.34	0.57	0.16	0.16	0.14	0.45	0.44	0.42	.69		
13	4.54	1.57	0.36	0.45	0.39	0.55	0.28	0.31	0.16	0.48	0.31	0.56	0.79	0.33	.73	
14	5.2	1.05	0.50	0.66	0.52	0.30	0.23	0.23	0.23	0.39	0.55	0.31	0.35	0.21	0.41	.73

Note. 1 Continuity, 2 Corporate Social Responsibility, 3 Craftsmanship, 4 Credibility, 5 Design, 6 Heritage, 7 Integrity, 8 Nostalgia, 9 Origin, 10 Originality, 11 Quality Commitment, 12 Self-Authenticity, 13 Sincerity, 14 Symbolism. Entries below the main diagonal are correlations between the latent variables; the main diagonal is the square root of AVE; square root of the AVE being greater than the correlation coefficient implies sufficient discriminant validity.

Hence, the final model is composed of 64 items distributed in fourteen dimensions for the brand authenticity context. The data were analyzed with the help of SPSS software (version 21.0 for Mac) and AMOS (version 18.0 for Windows).

4.3.1 THE SECOND ORDER CONFIRMATORY ANALYSIS

The second-order CFA was carried out, which attempted to understand the ability of each dimension to reflect brand authenticity. First, brand authenticity (second-order factor) convergent validity is proved since the path coefficients between variable and reflective measures were all positive.

The estimated relationship between attributes and brand authenticity were positive and significant, with ($p < 0.001$) for fourteen items, continuity $\gamma = 0.581$, corporate social responsibility $\gamma = 0.673$, craftsmanship $\gamma = 0.422$, credibility $\gamma = 0.508$, design $\gamma = 0.463$, heritage $\gamma = 0.635$, integrity $\gamma = 0.664$, nostalgia $\gamma = 0.291$, origin $\gamma = 0.309$, originality $\gamma = 0.259$, quality commitment $\gamma = 0.378$, self-authenticity $\gamma = 0.126$, sincerity $\gamma = 0.401$, symbolism $\gamma = 0.369$.

The model fit parameters of the second order CFA model are considered adequate and acceptable according to Hair and colleagues (2010): $\chi^2 = 840.23$ with 216 degrees of freedom and p-value < 0.001 , RMSEA = 0.051, RMR = 0.076, NFI = 0.910, CFI = 0.940, GFI = 0.920, AGFI = 0.920. As a reference of the composite reliability of the scale, the values of the CR were expected to be > 0.70 . As a reference of the explanatory power of each dimension, the AVE values were expected to be > 0.40 as shown on Appendix O. Results demonstrate convergent validity whereby 67 items represent fourteen: 1 continuity, 2 corporate social responsibility, 3 craftsmanship, 4 credibility, 5 design, 6 heritage, 7 integrity, 8 nostalgia, 9 origin, 10 originality, 11 quality commitment 12 self-authenticity, 13 sincerity, 14 symbolism, interrelated first order factors that correspond with a higher order brand authenticity construct.

Table 26
Estimated standardized coefficients

		Standardized Coefficients (γ)
Continuity	Brand Authenticity	.581**
Corporate Social Responsibility	Brand Authenticity	.673**
Craftsmanship	Brand Authenticity	.422*
Credibility	Brand Authenticity	.508**
Design	Brand Authenticity	.463**
Heritage	Brand Authenticity	.635*
Integrity	Brand Authenticity	.664**
Nostalgia	Brand Authenticity	.291**
Origin	Brand Authenticity	.309**
Originality	Brand Authenticity	.259*
Quality Commitment	Brand Authenticity	.378*
Self-Authenticity	Brand Authenticity	.126**
Sincerity	Brand Authenticity	.401*
Symbolism	Brand Authenticity	.369*

Note. $\chi^2 = 840.23$ with 216 degrees of freedom and p-value < 0.001 RMSEA = 0.051, RMR = 0.076, NFI = 0.910, CFI = 0.940, GFI = 0.920, AGFI = 0.920. * $p < 0.05$ ** $p < 0.001$ * $p < 0.05$

4.3.2 DISCRIMINANT VALIDITY BETWEEN BRAND AUTHENTICITY AND OTHER CONSTRUCTS

To establish discriminant validity, brand loyalty $\alpha = .816$, brand image $\alpha = .543$, brand personality $\alpha = .546$ and brand attitude $\alpha = .668$ were tested on a second-order factor model of brand authenticity.

Attitude toward the brand (Russell, 2002) was measured by the mean of 2 items: good-bad, dislike very much – like very much. Word-of-mouth behavior was measured on a single-item: ‘Will you tell your friends and acquaintances positive things about this brand?’ (Cheema & Kaikati, 2010). Purchase intention behavior was measured on a single-item: ‘How likely would you be to purchase a product of this brand or use its services?’ (Newman & Dhar, 2014). Brand image was measured on a three-item: 1. Some characteristics of the brand come quickly to my memory 2. I can quickly recognize the symbol (or logo) of the brand 3. I have trouble remembering the brand in my mind) (Washburn & Plank, 2002). Brand personality was measured on a reduced scale of 12 items: down to earth, stable, responsible, active, dynamic, innovative, aggressive, bold, ordinary, simple, romantic, sentimental (Geuens, Weijters & De Wulf, 2009).

This second-order modeling strategy was required to test discriminant validity at an overall construct level which showed no $|\pm 1|$ correlations, then, supporting discriminant validity as seen on Table 27. Also, average variance extracted (AVE) was compared with the corresponding inter-construct squared correlation estimates. Table 27 shows that the square root of the AVE values of all factors are greater than the inter-construct correlations (Fornell & Larcker, 1981).

Table 27
Correlations between latent variables of the model

Constructs	Brand loyalty	Brand image	Brand personality	Brand attitude
Brand loyalty	.816			
Brand image	.543	.774		
Brand personality	.546	.487	.719	
Brand attitude	.541	.477	.552	.668

Note. Entries below the main diagonal are correlations between the latent variables; the main diagonal is the square root of AVE; square root of the AVE being greater than the correlation coefficient implies sufficient discriminant validity, * $p < 0.05$
** $p < 0.001$

Discriminant validity of the brand authenticity was tested against brand loyalty, brand

image, personality and attitude. Brand authenticity is related, but distinct from, such variables.

They all have relevant implications for consumer behaviors and to marketing, such as buying, repeat buying, and recommending and are strengthened by authenticity (Park et al., 2010). Authentic brands are committed to delivering on their promises, and consumers rely more on brands they believe they will carry out (Bruhn et al., 2012, Eggers et al., 2013, Morhart et al., 2015, Napoli et al., 2014). Brand positioning, through authenticity, contributes to greater consumer loyalty, brand attachment and positive intentions. The development of an authentic brand, from its inception, or as a rebranding strategy, virtually allows companies to be more efficient in satisfying human needs, as well as driving effective communications and enhancing financial performance.

Brand attitude is defined as consumers' assessments of a brand and is a function of its salient attributes and benefits (Keller, 1993). As such, attitude toward the brand is a result of consumers' judgment of whether a brand possesses attributes they consider desirable. Brand attitude and authenticity are both brand evaluations. Brand authenticity helps consumers to be true to themselves. However, attitude does not necessarily connect the brand to consumers' self (Morhart et al., 2015).

4.3.4 PREDICTIVE VALIDITY

Predictive validity of the brand authenticity scale was further assessed through structural equation modeling, whereby the fourteen interrelated first-order factors load onto a brand authenticity variable which then predicts purchase intention and word-of-mouth. The adjusted R^2 of .640 ($p < .001$) suggests that a significant proportion of the variation in a consumer's intention to purchase a brand is accounted with all fourteen factors being significant predictors of purchase intention and word of mouth $R^2 = .681$ ($p < .001$).

The fit statistics were chi-square = 459.92, 107 degrees of freedom ($p < .001$), CFI = .907, GFI = .901, TLI = .879, normed fit index NFI = .871, and RMSEA = .053.

The research findings revealed that 64% of the purchase intention is explained by the brand authenticity variable and 68% of WOM is explained by the brand authenticity variable and so brand authenticity is an empirically significant predictor of purchase intentions and word-of-mouth.

4.4 THE ITEM RESPONSE THEORY

From the 3PL IRT model it was possible to analyze the global authenticity score given by the formula:

$$P_i(\theta) = c_i + (1 - c_i) \frac{e^{Da_i(\theta - b_i)}}{1 + e^{Da_i(\theta - b_i)}}$$

The 3PL model was used to generate response patterns. The responses, originated from the Likert scale (1-7), were recoded into 0 and 1. When a subject responds to a series of items, it produces a pattern of responses, composed of correct answers (value 1) and errors (value 0). It means that 0 represents a subject that has no aptitude and 1 for the subject that has an optimal aptitude (Baker, 2001; Pasquali & Primi, 2003). Table 26 shows examples for 4 subjects and 15 items and its pertinent scores.

Table 28
Response patterns of 15 items for 'n' subjects

Response patterns of 15 items for 'n' subjects																
Subject	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Scores
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1,06
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	-1
3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	-0,78
5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	-0,99

In order to analyze aberrant item responses, two person fit statistics (PFS) were analyzed. Aberrant behavior means the ones that resulted from testees' fatigue, distraction, cheating or advanced specialized knowledge (Armstrong, 2009). Low person fit statistics (l_0 and l_z) indicate misfitting item score patterns. The smaller the (negative) l_z and l_0 values, the stronger the indication of misfit. For this work, l_0 values < -11.23 and $l_z < -1.12$ would indicate a model misfit. On the other hand, according to literature, the item score patterns are well-adjusted, once their means were -7.1371 and -0.1531, respectively (Drasgow, Levine, & Williams, 1985; Levine & Rubin, 1979).

Table 29
Person fit statistics

Statistics				
n = 426	Minimum	Maximum	Mean	Std. Deviation
Factor score	-0.65	2.3	0.8381	0.47656
Levine and Rubin PFS (I ₀)	-15.63	-0.33	-7.1371	2.08746
Drasgow PFS (I _z)	-4.74	2.04	-0.1531	1.02842
p-Value Drasgow PFS	0	0.98	0.4759	0.27251

Note. PFS = person-fit statistics

All IRT procedures were done on version 24 of IBM SPSS Statistics through the application of Essentials for R. In order of the well functioning of the package, free software R, version 3.2, was also utilized. All the IRT procedures done on this dissertation were made possible by the installation of the STATS IRM command, from the 'ltm package', included in the R Essentials plug-in for SPSS. The STATS IRM command fits the three-parameter logistic (3-PL) estimates model by providing coefficients, fit statistics, factor scores, item characteristic curves, and person-fit statistics (IBM, 2019).

After the generation of scores, the next step was the estimation of Item Characteristic Curves, *a posteriori*, by the analysis of values of the estimates of the central tendency measures for all items. The IRT command was applied to the 50th, 60th, 70th, 80th percentiles of the sample (Table 28 and Appendix P). By analyzing the results, it was found that the 80th percentile was the most satisfactory and it is explained on the next paragraph.

On Table 30, results regarding the three parameters and its goodness-of-fit are exposed. The 'a' parameter, with largest values, indicates that the correspondent authenticity dimension has a lower discrimination power in relation to others. Higher values indicate the Item Characteristic Curve is sharper; these values represent a larger discrimination capacity of the item. The 'b' parameter represents the level of the authenticity dimension in increasing the probability of a brand to be more authentic, expressed by an individual. With a larger 'b', there is a smaller probability to find the correspondent authenticity dimension at the brand/subject combination. The 'c' is the parameter that represents the respondent's low ability of response, i.e., the random guessing parameter, in case the subject guessed its own answers.

Goodness-of-fit, for the IRT model can be tested through Chi-square, p-Value significance, Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC). Non-significant Chi-square value indicates a good fit to the model, i.e., $p > 0.00$. AIC estimates the relative amount of information lost by a given model, in this case, the less information a model loses, the higher the quality of that model, and lower values are expected. BIC is a criterion for model selection among a finite set of models; the model with the lowest BIC is preferred². It is based, in part, on the likelihood function and it is closely related to Akaike Information Criterion When fitting models (Akaike, 1974; Kass & Raftery, 1995; Moussa, 2016; Vrieze, 2012).

For the 50th percentile AIC and BIC values were 17254.7 and BIC 17473.5, the highest between all percentiles. For the 60th AIC was 16683.0 and BIC was 16901.9. For the 70th AIC was 15565.4 and BIC was 15784.2. And for the 80th AIC was 13137.836 and BIC was 13356.66, the lowest between the percentiles and > 10 considerate so, the most adequate and very strong model. Also, the Chi-square was analyzed and the ones who best fitted the model was the one found on the 80th percentile where there is no significant p-Value, and so better goodness-of-fit.

Table 31
IRT Parameters

IRT Statistics				
Parameter	50	60	70	80
AIC	17254.7	16683.0	15565.4	13137.836
BIC	17473.5	16901.9	15784.2	13356.66

Note. AIC = Akaike Information Criterion and BIC = Bayesian Information Criterion.

Thus, the probability of a correct response is determined by the difficulty of the item and the ability of the respondent, resulted in the Item Characteristic Curve (ICC). Such probability is illustrated by Figure 4.

² Bayesian Information Criterion (BIC) values of reference: 0 to 2 = not worth, 2 to 6 = positive, 6 to 10 = strong and >10 very strong (Kass & Raftery, 1995).

In this work it is noted that the probability is a function of ability, which is monotonically, increasing. That is, while the individual's ability increases, the likelihood of a correct response also increases. The difficulty parameter of the item, as explained by its name, measures the difficulty of a testee to respond correctly to the item. Figure 4 shows the ICC, for fourteen dimensions of authenticity, with difficulty parameters varying between -0.751 and 0.94. In this case, the position of the curve is determined by the difficulty parameter. That is, as further to the right is a curve, farther it is from measuring an item correctly. In this example, the item 'self-authenticity' (SA_50) would be the most distant dimension of brand authenticity concept. Meanwhile 'continuity' (CO_50) would be the closest.

The values of the difficulty parameters for these fourteen brand authenticity items are between -0.751 and 0.94. The values of the discrimination parameters vary between 1.917 and 4.352. In Figure 4, it is observed that as the value of the discrimination parameter increases, the ICC becomes sharper around 0. As the ability value changes from -2.0 to 2, the probability of a correct response changes from -2 to -.5 for the 'continuity' item (light blue line), which is larger than the 'self-authenticity' item (dark blue line) that varied from -2 to 0.5. For this reason, the item 'continuity' can differentiate the subjects more efficiently than the 'self-authenticity' item.

Difficulty parameters (b) valued < 1 represent dimensions that are more approximate to the semantic meaning of brand authenticity, called on this work by 'global dimensions' whilst factors > 1 , called 'specific dimensions' represent the most distant ones. In this configuration, 'integrity' would be found at the baseline of the hierarchical structure, named as global, while 'self-authenticity' would be the apex of the complex, named as specific. Thus, for the 50th percentile arrangement, brand authenticity hierarchical model would form 7 global and 7 specific factors.

Figure 4 represents the most adequate structure of brand authenticity by means of fit measurements and theory. The values of the difficulty parameters for these fourteen brand authenticity items are between 0.591 and 1.745, seen on the 'y' axis. The values of the discrimination parameters vary between 1.606 and 4.164, and are seen on the 'x' axis called 'authenticity'. It shows that as the value of the discrimination parameter increases, the ICC becomes sharper around 0. Authenticity parameters (b) valued < 1 represent dimensions that are more approximate to the semantic meaning of brand authenticity, called on this work by 'global dimensions' whilst factors > 1 , called 'specific dimensions' represent the most distant

ones. In this configuration, 'continuity' would be found at the baseline of the hierarchical structure, named as global, while 'self-authenticity' would be the apex of the complex, named as specific. Thus, for the 80th percentile arrangement, brand authenticity hierarchical model would form seven global and seven specific factors.

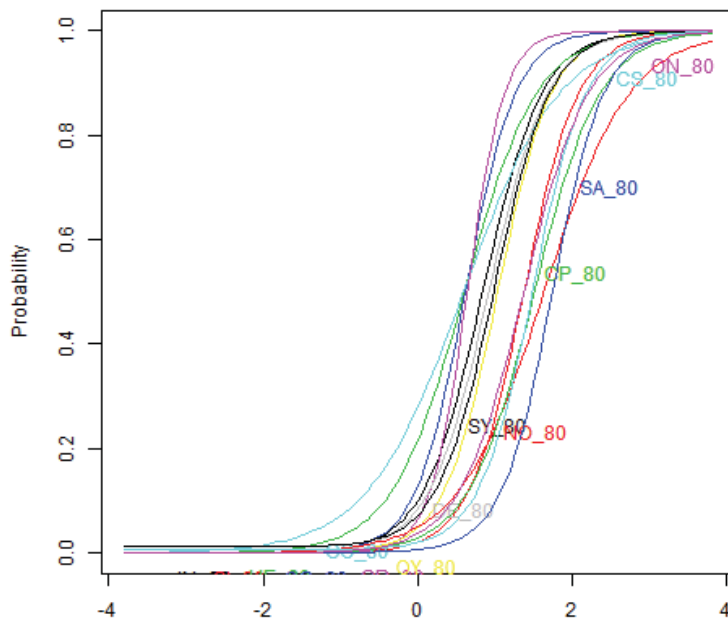


Figure 4. Brand authenticity item characteristic curve for the 80th percentile

Note. The 'y' axis corresponds to the probability of a correct item to happen while the 'x' axis shows the dimensions that comprise brand authenticity. The dark blue line, SA_80, represents the farthest dimension from the 'y' axis and so from brand authenticity. On the other hand, the first light blue line, CO_80, represents the first dimension to constitute the hierarchy of brand authenticity.

In the Item Response Theory approach, the amount of information that each item contributes is not evenly distributed across the continuum of latent constructs. The value of the slope parameter shows the amount of information provided by the item. Items that have high slope values are more informative than items that have low slope values. Figure 8 represents the item information curves for brand authenticity. In this case, the slope value of the 'self-authenticity' item (SA_80 in dark blue) is much smaller and flatter than the slope value of the 'credibility' item (CR_80 in pink).

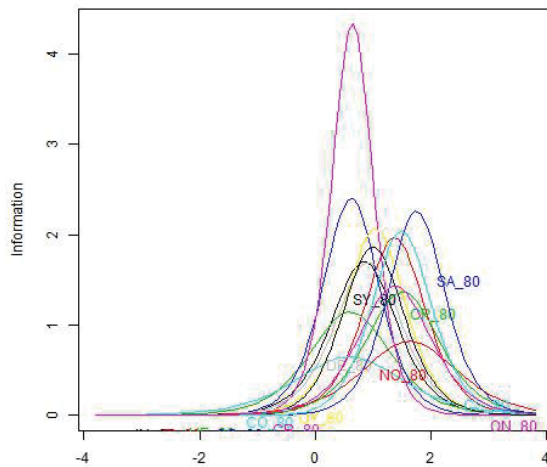


Figure 8. Brand authenticity information curves for the 80th percentile

4.5 CONVERGENT AND DISCRIMINANT VALIDITY OF IRT SCORES

The multitrait-multimethod matrix (MTMM) is a table of correlations that enables, simultaneously, to examine convergent and discriminant validity, for more than one trait (underlying construct) and more than one method (form of measurement). As Campbell and Fiske (1959) affirmed: “Ideally, scores should reflect only the intended trait and not be influenced by the method.” (Campbell & Fiske, 1959, p.81).

In this dissertation, a form of the MTMM was used to check if brand authenticity, authenticity (Newman & Dhar, 2014), genuineness, brand loyalty, word-of-mouth, brand image, brand personality and brand attitude could be measures by three different methods (Campbell & Fiske, 1959; Churchill, 1979; Dowling, 1986).

Table 30 shows the results of the MTMM. The entries in the validity diagonal are significantly different from zero and sufficiently large that encouraged further examination of validity. This evidences convergent validity. Also, variables that correlated higher, measure the same trait. Variables that correlated lower, measure different when using the same method. This guarantees heterotraits. The reliability diagonal shows that values are high, which provides reliability to the model. Also, the multitrait method provides discriminant validity once loadings are not highly correlated between variables and data shows no significant difference between methods.

Table 31
Multitrait-multimethod matrix

	Multitrait-Multimethod Matrix							
*	1	2	3	4	5	6	7	8
Brand Authenticity (this work)								
Authenticity (Newman & Dhar, 2014)	.78							
Genuineness (this work)	.62	.76						
Brand Loyalty	.48	.49	.50					
WOM	.43	.47	.38	.60				
Brand Image	.50	.48	.51	.40	.58			
Brand Personality	.28	.33	.36	.54	.31	.49		
Brand Attitude	.33	.37	.40	.38	.41	.45	.50	

Note. *1 = brand authenticity, 2 = authenticity (Newman & Dhar, 2014), 3 = genuineness, 4= brand loyalty, 5 = word-of-mouth, 6 = brand image, 7 = brand personality, 8 = brand attitude
The validity diagonal is the one with italic values. The reliability diagonal is the one with bold values. Heterotraits are the ones in color.

4.6 AUTHENTICITY SCORES OF BRANDS

On this work forty two brands were included in the study among diverse categories of products: hygiene and beauty, apparel and accessories, services, technology, entertainment, food and beverages, luxury and industrial. Authenticity conveys in all this categories through similar patterns disregarding product category, buying frequency, hedonic or utilitarian consumerism, distribution and price. Through the IRT score of authenticity, it is noted on Table 32 that the most authentic brand is Lancôme (.80) and the least one is Red Bull (.02) and on Table 33 that the most inauthentic brand is The Pirate Bay (-1.06) and the least inauthentic brand is YouTube (-.07).

Table 32
Brands through IRT authenticity scores

Brand	Category	IRT Score
Authenticity Ranking		
Lancôme	Hygiene and Beauty	0,80
Google	Technology	0,79
Amazon	Technology	0,78
HP	Technology	0,62
Intel	Technology	0,56
Johnson and Johnson	Hygiene and Beauty	0,45
Electronic Arts	Entertainment	0,44
Nescafé	Food and Beverages	0,41
Nike	Apparel and Accessories	0,33
BMW	Industrial	0,32

Bayer	Industrial	0,28
Netflix	Services	0,28
RayBan	Apparel and Accessories	0,27
Nestlé	Food and Beverages	0,23
Hermés	Luxury	0,21
Apple	Technology	0,19
Disney	Entertainment	0,18
Honda	Industrial	0,17
Nivea	Hygiene and Beauty	0,15
Avon	Hygiene and Beauty	0,11
Hershey's	Food and Beverages	0,10
Adidas	Apparel	0,10
Rolex	Luxury	0,09
Louis Vuitton	Luxury	0,09
Coca-Cola	Food and Beverages	0,05
Heineken	Food and Beverages	0,02
Red Bull	Food and Beverages	0,02

Table 33
Brands through IRT authenticity scores

Inauthenticity Ranking		
YouTube	Technology	-0,07
Uber	Services	-0,11
Sony	Technology	-0,20
Nokia	Technology	-0,31
Airbnb	Services	-0,34
Monster	Food and Beverages	-0,34
Facebook	Technology	-0,35
Pepsi	Food and Beverages	-0,35
Campari	Food and Beverages	-0,47
Yahoo	Technology	-0,63
Zara	Apparel	-0,63
Pfizer	Pharmaceutical	-0,78
NFL	Entertainment	-0,92
Alibaba	Technology	-1,06
The Pirate Bay	Technology	-1,06

Tables 34 to 41 discuss the hierarchical order of dimensions, from 1 to 15, where 1 is the most impacting on the brand and 15 is the least impacting factor, across categories of

product or services, contemplating the most authentic and the most inauthentic brand. For complete information, see Appendix P.

The ‘entertainment’ category, Table 34, shows Disney as the authentic and NFL as the inauthentic brand. The first three dimensions shows a consistency between the IRT structure showing that for Disney, the most important factor is ‘heritage’ followed by ‘continuity’ and ‘integrity’ demonstrating all global dimensions of authenticity according to this work. For NFL, the structure follows ‘continuity’ as the most important factor followed by ‘heritage’ and ‘design’, also global dimensions. Disney creates emotional connections by its heritage and showing it along the years and integrity by what is stated on its mission and values.

Table 34
Entertainment category and its structure of factor importance

Category	Entertainment			
Brand	Dimension	Brand	Dimension	Order
Disney		NFL		
	Heritage	1	Continuity	1
	Continuity	2	Heritage	2
	Integrity	3	Design	3
	Quality Commitment	4	Quality Commitment	4
	Credibility	5	Origin	5
	Design	6	Credibility	6
	Originality	7	Craftsmanship	7
	Symbolism	8	Originality	8
	Origin	9	Corporate Social Responsibility	9
	Corporate Social Responsibility	10	Integrity	10
	Nostalgia	11	Symbolism	11
	Sincerity	12	Nostalgia	12
	Craftsmanship	13	Sincerity	13
	Self Authenticity	14	Self Authenticity	14

The ‘food and beverage’ category, Table 35, shows Nescafé as the authentic and Pepsi as the inauthentic brand. The first three dimensions shows a consistency between the IRT structure showing that for Nescafé, the most important factor is ‘continuity’ followed by ‘credibility’ and ‘heritage’ demonstrating all global dimensions of authenticity according to this work. For Pepsi, the structure follows ‘continuity’ as the most important factor followed by ‘heritage’ and ‘design’, also global dimensions.

Table 35

Food and beverages category and its structure of factor importance

Category	Food and Beverages				
Brand	Dimension	Order	Brand	Dimension	Order
Nescafé			Pepsi		
	Continuity	1		Continuity	1
	Credibility	2		Heritage	2
	Heritage	3		Design	3
	Quality Commitment	4		Credibility	4
	Integrity	5		Integrity	5
	Design	6		Quality Commitment	6
	Sincerity	7		Sincerity	7
				Corporate Social	
	Symbolism	8		Responsibility	8
	Originality	9		Origin	9
	Craftsmanship	10		Symbolism	10
	Corporate Social				
	Responsibility	11		Originality	11
	Origin	12		Craftsmanship	12
	Nostalgia	13		Nostalgia	13
	Self-Authenticity	14		Self-Authenticity	14

The ‘hygiene and beauty’ category, Table 36, shows Lancôme as the authentic and Pfizer as the inauthentic brand. The first three dimensions shows a consistency between the IRT structure showing that for Lancôme, the most important factor is ‘quality commitment’ followed by ‘continuity’ and ‘heritage’ demonstrating all global dimensions of authenticity according to this work. For Pfizer, the structure follows ‘integrity’ as the most important factor followed by ‘sincerity’ and ‘heritage’, also global dimensions.

Table 36

Hygiene and beauty category and its structure of factor importance

Category	Hygiene and Beauty/Pharmaceutical				
Brand	Dimension	Order	Brand	Dimension	Order
Lancôme			Pfizer		
	Quality Commitment	1		Integrity	1
	Continuity	2		Sincerity	2
	Heritage	3		Heritage	3
	Credibility	4		Quality Commitment	4
	Design	5		Continuity	5
	Integrity	6		Credibility	6
	Origin	7		Originality	7
	Sincerity	8		Design	8
	Originality	9		Symbolism	9
	Self Authenticity	10		Self-Authenticity	10

Symbolism	11	Nostalgia	11
Craftsmanship	12	Craftsmanship	12
Corporate Social Responsibility	13	Corporate Social Responsibility	13
Nostalgia	14	Origin	14

The ‘industrial’ category, Table 37, shows BMW as the most authentic and Honda as the least authentic brand. The first three dimensions shows a consistency between the IRT structure showing that for BMW, the most important factor is ‘continuity’ followed by ‘heritage’ and ‘quality commitment’ demonstrating all global dimensions of authenticity according to this work. For Honda, the structure follows ‘heritage’ as the most important factor followed by ‘continuity’ and ‘integrity’, also global dimensions.

Table 37

Industrial category and its structure of factor importance

Industrial				
Dimension	Order	Brand	Dimension	Order
Honda				
Continuity	1		Heritage	1
Heritage	2		Continuity	2
Quality Commitment	3		Integrity	3
Design	4		Credibility	4
Credibility	5		Quality Commitment	5
Integrity	6		Symbolism	6
Symbolism	7		Design	7
Originality	8		Sincerity	8
Craftsmanship	9		Origin	9
Sincerity	10		Corporate Social Responsibility	10
Origin	11		Originality	11
Corporate Social Responsibility	12		Craftsmanship	12
Self Authenticity	13		Nostalgia	13
Nostalgia	14		Self-Authenticity	14

The ‘apparel and accessories’ category, Table 38, shows Nike as the most authentic and Zara as the inauthentic brand. The first three dimensions shows a consistency between the IRT structure showing that for Nike, the most important factor is ‘heritage’ followed by ‘continuity’ and ‘credibility’ demonstrating all global dimensions of authenticity according to

this work. For Honda, the structure follows ‘continuity’ as the most important factor followed by ‘credibility’ and ‘heritage’, also global dimensions, only interchanging positions.

Table 38

Apparel and accessories category and its structure of factor importance

Category	Apparel/Accessories				
Brand	Dimension	Order	Brand	Dimension	Order
Nike			Zara		
	Heritage	1		Continuity	1
	Continuity	2		Credibility	2
	Credibility	3		Heritage	3
	Quality Commitment	4		Design	4
	Design	5		Quality Commitment	5
	Integrity	6		Integrity	6
	Originality	7		Originality	7
	Symbolism	8		Craftsmanship	8
	Sincerity	9		Sincerity	9
	Corporate Social Responsibility	10		Origin	10
	Origin	11		Corporate Social Responsibility	11
	Craftsmanship	12		Symbolism	12
	Nostalgia	13		Nostalgia	13
	Self-Authenticity	14		Self-Authenticity	14

The ‘technology’ category, Table 39, shows Google as the most authentic and The Pirate Bay as the inauthentic brand. The first three dimensions shows a consistency between the IRT structure showing that for Nike, the most important factor is ‘quality commitment’ followed by ‘credibility’ and ‘continuity’ demonstrating all global dimensions of authenticity according to this work. For The Pirate Bay, the structure follows ‘originality’ as the most important factor followed by ‘integrity’ and ‘continuity’, also global dimensions.

Table 39

Technology category and its structure of factor importance

Category	Technology				
Brand	Dimension	Order	Brand	Dimension	Order
Google			The Pirate Bay		

Quality Commitment	1	Originality	1
Credibility	2	Integrity	2
Continuity	3	Continuity	3
Symbolism	4	Heritage	4
Integrity	5	Sincerity	5
Heritage	6	Credibility	6
Originality	7	Quality Commitment	7
Design	8	Design	8
Corporate Social Responsibility	9	Symbolism	9
Origin	10	Origin	10
Sincerity	11	Corporate Social Responsibility	11
Self Authenticity	12	Nostalgia	12
Nostalgia	13	Craftsmanship	13
Craftsmanship	14	Self-Authenticity	14

The ‘luxury’ category, Table 40, shows Hermès as the most authentic and Rolex and Louis Vuitton the least authentic brands. The first three dimensions show a consistency between the IRT structure showing that for quality commitment, craftsmanship, continuity and heritage are the most important factors.

Table 40

Luxury category and its structure of factor importance

Category	Luxury					
Brand	Dimension	Brand	Dimension	Brand	Dimension	Order
Rolex		Hermès		Louis Vuitton		
	Quality Commitment	1	Craftsmanship	1	Continuity	1
	Continuity	2	Continuity	2	Heritage	2
	Heritage	3	Quality Commitment	3	Quality Commitment	3
	Credibility	4	Heritage	4	Design	4
	Design	5	Design	5	Craftsmanship	5
	Craftsmanship	6	Credibility	6	Credibility	6
	Originality	7	Origin	7	Integrity	7
	Integrity	8	Originality	8	Originality	8
	Origin	9	Integrity	9	Origin	9
			Corporate Social Responsibility			
	Symbolism	10	Responsibility	10	Sincerity	10
	Sincerity	11	Sincerity	11	Corporate	11

				Social Responsibility	
Corporate Social Responsibility	12	Symbolism	12	Symbolism	12
Nostalgia	13	Nostalgia	13	Nostalgia	13
Self- Authenticity	14	Self- Authenticity	14	Self- Authenticity	14

The ‘services’ category, Table 41, shows Netflix as the most authentic and Airbnb as the inauthentic brand. The first three dimensions shows a consistency between the IRT structure showing that quality commitment, heritage, credibility, integrity, sincerity and heritage are the most important dimensions contemplating all global dimensions of authenticity.

Table 41

Services category and its structure of factor importance

Category	Services				
Brand	Dimension	Order	Brand	Dimension	Order
Netflix			Airbnb		
	Quality Commitment	1		Integrity	1
	Heritage	2		Sincerity	2
	Credibility	3		Heritage	3
	Continuity	4		Quality Commitment	4
	Integrity	5		Continuity	5
	Sincerity	6		Credibility	6
	Originality	7		Originality	7
	Symbolism	8		Design	8
	Design	9		Symbolism	9
	Corporate Social Responsibility	10		Nostalgia	10
	Origin	11		Craftsmanship	11
	Nostalgia	12		Self Authenticity	12
	Self-Authenticity	13		Corporate Social Responsibility	13
	Craftsmanship	14		Origin	14

The authenticity score works once it is consistent between brands disregard category of product or services. Also, a *t test* was performed in order to examine incongruity between what was previously stated between authentic an inauthentic brands. So, the brand that carried

the highest score of authenticity in its category was compared to the lowest score of authenticity in its category. Findings demonstrate that comparisons between brands were statistically significant ($p < 0.05$).

Table X

T test between brands category of products

Category	Authentic brands score		p-value
	high (M)	low (M)	
Hygiene and beauty	.800	-10	.01*
Technology	.674	-90	.01*
Entertainment	.451	-800	.01*
Food and Beverage	.419	-776	.01*
Apparel and Accessories	.661	-87	.01*
Luxury	.551	-554	.01*
Services	.641	-66	.01*

Note. * ($p < 0.05$)

5 DISCUSSION

Findings show a fourteen dimensions brand authenticity measurement, which seven pertain to the global dimensions and seven to the specific ones. Also, as an alternative to the overall instrument, a reduced scale, called ‘genuineness’, compound of four items was proposed. The IRT model is consistent along all brand categories of products or services, which shows the relevance of unveiling a hierarchical structure. Once managers find out which dimensions impact brands the strongest, the deeper authenticity will be evoked.

Dimensions related to authenticity semantic meanings occupy the baseline of the hierarchical structure once they carry the purest meanings and are: continuity, heritage, quality commitment, credibility, integrity, design, symbolism (Akbar & Wymer, 2017; Bruhn et al., 2012; Ilic & Webster, 2014; Kososki & Prado, 2017; Morhart et al., 2014; Napoli et al., 2014). As specific dimensions of authenticity, that is, dimensions that float - “the miasma of meaning surrounding a brand” (Alexander, 2009, p. 552), the following are suggested: corporate social responsibility, craftsmanship, nostalgia, origin, originality, self-authenticity and sincerity (Akbar & Wymer, 2017; Athwal & Harris, 2018; Kososki & Prado, 2017; Morhart et al., 2014; Napoli et al., 2014).

The baseline dimensions are built by the vendor and perceived by its connoisseurs. I.e., the baseline dimensions are mandatory in order to build an authentic brand. The ‘miasma’ dimensions are also built by the vendor and perceived by its connoisseurs, but do not necessarily have to exist to be considered authentic (Akbar & Wymer, 2017).

Also, a redefined concept of the term was suggested: Brand authenticity is the manifest between the construction of brand attributes, which come from its core and are dictated by its supplier, and the individual's perception of those attributes. It is an agreement between brand and stakeholders on what is delivered and what is experienced.

The very nature of authenticity involves psychological and philosophical aspects, which demands a multidisciplinary approach and comprises a complex structure. Understanding what makes a particular brand to be chosen, among a sea of options, obliges academics and managers to look for answers in disciplines that delve into the behavior and structure of the human psyche. Therefore, brand authenticity encompasses an objective aspect that makes a particular brand acquire authenticity, such as, for example, the taste of a Swiss chocolate. This may leverage the brand, but it is not enough to make it authentic. The brand

becomes authentic because it symbolizes some values to the consumer, through its global dimensions, which is assessed by the consumer and also by the others who acknowledge the brand. Authenticity then involves phenomena that go beyond the scope of Marketing.

One might think: *Why build another measurement of brand authenticity, specially, through the use of the IRT approach?*

When authenticity is seen through its factors hierarchy, it considers brand audiences and product or service offerings by distinguishing its aimed values to specific consumers. Thus, marketers need instruments that serve as a pathway to plan and implement strategic brand decisions. Although there are several brand authenticity scales, there still remained a need for the definition of the term ‘brand authenticity’. Once there was no consensus on its conceptualization, there was not an adequate measurement. To measure any consumer-brand relationship, it is essential to use high quality methodologies. Once the aim of theory is to explain and predict phenomenon whilst the aim of the measurement is to comprehend the phenomenon itself, both need to be consonant. In order to advance marketing theory on branding, an alternative outlook was proposed: the use of the Item Response Theory.

Brand authenticity quantitative studies, up to date, have developed multidimensional scales, but the IRT was never implemented. In this work, the IRT was used in conjunction with other traditional quantitative techniques and, combined, resulted in a solid measurement (Akbar & Wymer, 2017; Dwivedi & McDonald, 2018; Pereira & Pinto, 2011; Singh, 2004).

The traditional approaches, themselves, reflect the philosophy of the “academic mainstream” (Balasubramanian & Kamakura, 1989) and as for Guignon (2004) questioned: “Isn’t it the case that being authentic means being fundamentally and unavoidably out of step with the mainstream?” (Guignon, 2004, p. 76).

Thus the hierarchical model proposed on this work signals brand authenticity with complexity which accrued in brand authenticity forming dimensions: commitment to quality, continuity, credibility, design, heritage, integrity and sincerity and authenticity craftsmanship, nostalgia, origin, self-authenticity, corporate social responsibility, originality and symbolism (Akbar & Wymer, 2017; Bruhn et al., 2012; Ilic & Webster, 2014; Kososki & Prado, 2017; Morhart et al., 2014; Napoli et al., 2014).

Also, from the correlation between items such as brand loyalty, brand image, brand personality and brand attitude into brand authenticity, discriminant validity was identified and it was proved that authenticity is a unique variable on the brand management context.

Furthermore, brand authenticity is a predictor of word-of-mouth and purchase intentions (Neter & Kutner, 1983).

This work contributes to the theoretical construction of consumer-brand relationships by expanding brand authenticity literature with a revisited concept and two measuring instruments, one characterized by fourteen dimensions, called brand authenticity hierarchical model and a second one, one-dimensional, compound of four items. Brand authenticity creates a singular brand identity (Beverland, 2006; Brown et al., 2003; Guèvremont & Grohmann, 2017) and favorable brand associations (Keller, 1993). Authentic brands are perceived as such when they essentially transmit their true identity in their relationships with consumers (Ilic & Webster, 2014). Thus, consumer-brand relationship is strengthened through the signals of authenticity, which corroborates to literature (Fournier, 1998).

6 CONCLUSIONS

This dissertation reports on the development of a hierarchical model of brand authenticity and a redefined concept.

Among marketing scholars, the relational approach of consumer–brand relationship is the founding base of market differentiation and sustainable competitive advantage (Lindstrom, 2005; Thompson et. al, 2006). Well-informed consumers, in the increasing homogenization of the market, do not accept deceitful brand behaviors, conversely, they strive for authenticity. Brands that may be differentiated from others, through their authenticity, offer promises and considerably shape consumer-buying preferences (Beverland & Farelly, 2010; Fritz et al., 2017; Grayson & Martinec, 2004; Holt, 2002). And if that’s the case, then your next challenge is to leverage your authenticity to its full advantage to your enterprise.

In line with the existential perspective on brand authenticity, authentic brands have the potential to elicit relatively strong connections with consumers once they interact with brands in a human like manner, seeking out transparency and genuineness, despite external pressures (Arnould & Price, 2000; Beverland & Farrelly, 2010; Fournier, 1998; Guèvremont & Grohmann, 2017). However, findings contribute to the view that brand authenticity is intertwined by the constructivist, objectivist and existential approaches (Akbar & Wymer, 2017; Grayson & Martinec, 2004; Guèvremont, 2018; Trilling, 1972).

Disregarding brand type, authenticity is crucial for creating brand resonance and build brand equity (Becker et al., 2019; Grayson & Martinec, 2004; Ilic & Webster, 2014; Keller, 2008; Lu et al., 2015; Park et al., 2010). Thus, it can enhance marketing strategies to position or reposition brands (Fritz et al., 2017). Also, an authentic brand is likely to diminish negative impacts due to scandals and implies a great economic impulse on firms by increasing substantially their profits. If a consumer finds out an inconsistency between non-visible aspects and real facts of a brand, then authenticity is lost (Becker et al., 2019; Guèvremont & Grohmann, 2017).

Once brands have the hierarchical structure of dimensions it will have great relevance on designing brand's ads corresponding with the message to be transmitted according to the pertaining dimensions (Becker et al., 2019). The authenticity hierarchy was unveiled through the IRT approach. By unveiling such hierarchy, this work reckons upon the understating of what is crucial to the nature of authenticity. Also, this dissertation contributes for a full comprehension of the concept that will integrate consumer responses and brand efforts on communications, inside and outside the company (Guèvremont, 2018).

It is important to emphasize that although the methodology adopted is consistent with the objectives of this research, there are limitations arising from this choice and, consequently, implications in the expected results.

The choice of the electronic survey, for collecting data, although brings advantages such as the low financial resources implied, the short response time and in the ease of data processing, it does not allow a high rate of adherence through the respondents. The initial database comprised more than 10.000 individuals and the final sample only 1288 people, from both Brasil and The United States.

There are several propitious avenues for further research. First, next researches may also validate the proposed hierarchical scale in countries other than Brazil and The United

States, once data quality is expected to improve with an increase in the number of users representing different countries (Ilieva, Baron & Healey, 2002). Second, it would be of great opportunity to examine other antecedents and consequences, such as brand equity and brand trust. Third, it is suggested that researches should approach brand social media components to reflect contemporary market conditions on the brand authenticity (Guèvremont, 2018; Klink & Smith, 2001). Fourth, because IRT is a measurement paradigm, further research should account for the nomological context in which the respective constructs are being used. Fifth, authenticity should be analysed under a temporal perspective, i.e., analyzing in a longitudinal manner the impact of the construct on consumers and firms on the long-term (Guèvremont, 2018). Also, additional research should encompass the direct results of brand authenticity on firm performance and other strategic approaches such as customer orientation.

Even though some issues require additional research, it is hoped that this work stimulates marketing researchers to pay more attention to authenticity models in the branding management field once the future is expected to rely on substance, originality and relevance.

Theoretical contribution is given since it is possible to estimate the items of the brand authenticity measurement with greater precision and, therefore, to approximate the practical meaning to the theoretical one, once, a robust concept is presented. Such concept provides a better understanding of its underlying processes, as well as, a long way for marketers to analyze consumer behaviors and authentic brands.

The knowledge built on this work also provides managerial insights. It may be used by vendors, to work on the brand quality improvement, once authenticity has a subsequent impact on consumer satisfaction and behavioral intentions. Brand messages can be formulated to create and ripen authenticity to improve the firm's performance according to consumer connections (Brown, Kozinets & Sherry, 2003; Dagger & Sweeney 2006; Dagger et al., 2007; Guèvremont & Grohmann, 2016; Guèvremont, 2018; Napoli, Dickinson & Beverland, 2016).

In the unauthentic contemporary life, where consumers seek for authenticity, both personally and in the marketplace, an authentic brand can be the means to a consumer for acquiring a sense of meaning while building its identity (Cohen, 1988; Grayson & Martinec, 2004; Guèvremont, 2018; Holt, 2002; Leigh et al., 2006; Thompson & Tambyah, 1999).

A brand that holds values and positions itself fully while honestly discloses its practices, quality, craft processes and carries elements with history, either by its design or its trajectory, is perceived as authentic. Consumers feel inspired by authentic brands and invest

emotionally in their relationships in a loyal and continuous way even when there are other alternatives that could replace such a brand. Companies that build authentic brands tend to be more profitable, better valued and increase employees' engagement. Building an authentic brand only brings benefits to a firm when aligning the attributes of its products and/or services, its organizational core and its marketing efforts. As it is said by "peoples voice", authenticity is, nowadays, fashionable. In fact, authenticity has never gone out of style.

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APPENDIX A

Brand authenticity papers in the last fourteen years (2005-2019)

Author/Year/Title/ Publication	Objectives	Methodology	Results	Limitations
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Beverland (2005a) Brand Management and the Challenge of Authenticity <i>Journal of Product and Brand Management</i>	To provide insight into the challenges that the generalized search for authenticity presents to brand managers.	Theoretical paper	Authenticity requires managers to position their brands in communities and subcultures, to minimize ostensive marketing actions.	The exploratory results were not empirically tested.
Beverland (2005b) Crafting Brand Authenticity: The Case of Luxury Wine <i>Journal of Management Studies</i>	To analyze how luxury wine producers create and recreate authenticity images.	Case study with 26 luxury wine producers: Australia (4), France (14), Lebanon (1), New Zealand (5) and Portugal (2).	It presents nine key themes that create an impression of authenticity: formal and informal, real commitment to quality, ability to demonstrate historical quality and price performance, using place as a reference, stylistic consistency, using traditional methods of production, using history and culture as a reference and arising above commercial considerations.	The exploratory results were not empirically tested.
Beverland & Luxton (2005) Managing Integrated Marketing Communication (IMC) Through Strategic Decoupling <i>Journal of Advertising</i>	To examine how companies deliberately disassociate projected images from internal operations to create powerful brand images through advertising.	Case study with 26 luxury wine producers: Australia (4), France (14), Lebanon (1), New Zealand (5) and Portugal (2).	They present three main themes that help marketers and researchers design true-to-life brand images: the need for a consistent and sincere story, management of the tension between story and marketing, and dissociation in day-to-day operations from the philosophies advocated.	The exploratory results were not empirically tested.

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Beverland (2006) Branding Authenticity in the Luxury Wine Trade <i>Journal of Business Research</i>	To identify the 120tributes of authenticity in the 120tribute and how companies seek to manage authenticity images in the light of 120tribu pressures.	Case study with 20 ultra premium wine producers and interviews with 30 wine consumers.	It identified six 120tributes of authenticity: inheritance and pedigree, stylistic consistency, quality commitment, relation with place, production method and minimizing 120tributes considerations.	The exploratory results were not empirically tested.
Leigh, Peters & Shelton (2006) The Consumer Quest for Authenticity: The Multiplicity of Meanings Within the MG Subculture of Consumption <i>Journal of the Academy of Marketing Science</i>	To explore the multiplicity of meanings of authenticity within the consumer sub- culture of the car brand MG.	Ethnographic research that guided data collection and included observations with participants, review of 120trib and documents, formal and informal conversations, and in-depth interviews with 58 MG car owners.	MG brand car owners perceive the sense of authenticity through the object and its ownership, experiences in the consumption and the construction of identity.	The exploratory results were not empirically tested.
Beverland, Lindgreen & Vink (2008) Projecting Authenticity Through Advertising <i>Journal of Advertising</i>	To identify how companies create and maintain the image of authenticity through advertising, and how consumers evaluate authenticity in the face of advertising campaigns.	Interpretive interviews with 12 beer consumers in Belgium and the Netherlands.	They 120tribute the three ways consumers identify brand authenticity in advertising: 120tri (literal) authenticity, approximate authenticity, and moral authenticity.	The exploratory results were not empirically tested.
Alexander (2009) Brand Authentication: Creating and Maintaining Brand Auras <i>European Journal of Marketing</i>	To consider the 120tributes120 creating and maintaining the brand aura (brand auras) through the affirmation of authenticity.	Case study between the co- branding relationship of two organizations: sponsoring organization x sponsored organization.	It validates Beverland's six 120tributes of brand authenticity considered in the research, showing the most significant 120tributes in the case under consideration.	It studies the relation of authenticity in only one product: beer. In addition it uses a brand with a co- branding which is highly influenced by its aura.

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Liao & Ma (2009) Conceptualizing Consumer Need for Product Authenticity International <i>Journal of Business and Information</i>	To identify and discuss the idiosyncrasies of consumers in search of their satisfaction of authenticity.	Exploratory research through 10 in-depth interviews and focus group with the participation of 17 people.	It identifies 6 characteristics of authenticity: originality; commitment to quality and credibility; inheritance and persistence of style; scarcity; to be sacred; purity.	Qualitative study that does not test the propositions made.
Beverland & Farrelly (2010) The Quest for Authenticity in Consumption: Consumers' Purposive Choice of Authentic Cues to Shape Experienced Outcomes <i>Journal of Consumer Research</i>	To investigate whether consumers consume authentic objects with personal goals in mind.	21 in-depth interviews that lasted an average of 2 hours each and resulted in approximately 2,200 transcript pages.	They have revealed that specific objects, brands, and events provide the means by which consumers make assessments of control, connection, and virtue, and thus judgments of authenticity. The same event may be considered inauthentic by the same or different consumers depending on their purpose.	They did not examine whether consumers used unique strategies or a mix of strategies when they had personal goals in mind.
Molleda (2010) Authenticity and the Construct's Dimensions in Public Relations and Communication Research <i>Journal of Communication Management</i>	To define the authenticity construct, its dimensions and propose an index to measure the authenticity levels of messages and organizational actions, as well as perceived authenticity from the perspective of stakeholders.	Theoretical paper	They created an index of authenticity for communication based on 10 affirmations that are summarized to the following topics: amusing images; access to the original design; beliefs; connection with nature; originality in ideas; inheritance of the organization; sustainability; be an after-profit organization; images that refer to the organizational core.	The index is only conceptually created, with no quantitative study for testis and validation of predictions.

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<p>Bruhn, Schoenmüller, Schäfer & Heinrich (2012) Brand Authenticity: Towards a Deeper Understanding of Its Conceptualization and Measurement <i>Advances in Consumer Research</i></p>	<p>To develop a scale to measure the strength of brand authenticity perceived by consumers.</p>	<p>Five studies were conducted, through qualitative interviews and survey survey, to evaluate the consumers' notion of brand authenticity (study 1); generate and select the items for the brand authenticity scale (study 2); reduce the items and evaluate the dimensionality of the scale (study 3); validate the dimensions of brand authenticity (study 4); test the discriminant validity of the brand authenticity scale (study 5).</p>	<p>They developed a brand authenticity scale with 15 items grouped into four dimensions: continuity, originality, reliability and naturalness.</p>	<p>Although they found validity and reliability in the scale, the research was applied only in countries that speak German.</p>
<p>Eggers, O'Dwyer, Kraus, Vallaster & Güldenbergl (2013) The Impact of Brand Authenticity on Brand Trust and SME Growth: A CEO Perspective <i>Journal of World Business</i></p>	<p>To investigate the links between brand authenticity, brand trust, and the growth of small and medium businesses from a CEO perspective.</p>	<p>Survey with 285 CEOs of small and medium German firms.</p>	<p>They confirm that brand consistency and congruence create brand confidence, which in turn drives the growth of small and medium-sized businesses.</p>	<p>The paper considers only the managers of the German organizations.</p>
<p>Gundlach & Neville (2012) Authenticity: Further Theoretical and Practical Development <i>Journal of Brand Management</i></p>	<p>To investigate attributes that contribute to brand authenticity, which are more generalized and standardized, in the beer market.</p>	<p>The authors discussed authenticity and its potential driving factors through a questionnaire with 22 beer drinkers.</p>	<p>They found new dimensions not previously discussed: Heritage and pedigree Relationship to place Method of production Commitments to consistency and quality Ingredients and materials Company/craftsperson Esthetics; Uniqueness and originality Experience Genuineness; prioritizing craft</p>	<p>The majority of the respondents were male and there was no socioeconomic differentiation among the respondents. The authors carried a qualitative study that does not test the propositions made.</p>

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<p>Spiggle, Nguyen & Caravella (2012) More Than Fit: Brand Extension Authenticity <i>Journal of Marketing Research</i></p>	<p>To develop building a new 123once, Brand Extension Authenticity (BEA), and a scale to measure it.</p>	<p>Four studies were conducted, through experiments, to develop and validate the BEA scale (study 1); develop a fit scale that includes both similarities and relevant dimensions and shows the distinction and relationship between BEA and fit (study 2); examine the predictive power of BEA for fit (study 3); to test the moderating role of the self-brand connection (study 4).</p>	<p>They develop a scale that captures four distinct dimensions of BEA: brand and style standards, brand heritage, brand essence and avoid brand exploitation.</p>	<p>It did not use a wide range of product categories as symbolic brands. In addition, the 123concepto f123123 did not evaluate the brand extensions in relation to the competition.</p>
<p>Napoli, Dickinson, Beverland & Farrelly (2014) Measuring Consumer-Based Brand Authenticity <i>Journal of Business Research</i></p>	<p>To develop a psychometrically robust measure of brand authenticity from the point of view of consumers.</p>	<p>Four studies were carried out through a survey to generate and refine the scale items (study 1); determine and then confirm the structure of the fundamental factors of brand authenticity (studies 2 and 3); to test the 123 concepts discriminant, and predictive validity of the scale (study 4).</p>	<p>They provide a scale for measuring brand authenticity building with 14 items representing three interrelated factors: commitment to quality, honesty, and heritage.</p>	<p>The dimensions of cultural symbolism and sincerity did not emerge in the quantitative results, which contradicted the theoretical basis in which such dimensions were essential to the 123concepto f brand authenticity. It is not possible to obtain discriminant validity of constructs, even using the procedures of Fornell and Larcker (1981) and suggest the use of the MTMM model to analyze such discriminant validity.</p>

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Schallehn; Burmann & Riley (2014) Brand authenticity: model development and empirical testing <i>Journal of Product & Brand Management</i>	To develop a brand authenticity model and analyze the antecedents and effects of the construct.	Survey with 600 people in Germany about beer and fast food brands.	The model shows that authenticity positively impacts brand trust and has found three precedents for this: consistency; continuity and individuality.	The study used only two product categories and in only one country.
Ilic & Webster (2014) Investigating Consumer-Brand Relational Authenticity <i>Journal of Brand Management</i>	To conceptualize and measure relational brand authenticity.	Scale created from Churchill's (1979) requirements with the use of product and service brands by means of a survey with 147 valid respondents. From the creation of the scale, another survey was conducted in Australia with 342 respondents to verify possible mediators and moderators of relational brand authenticity.	A relational brand authenticity scale represented by four dimensions: awareness, unbiased processing, behavior and relational orientation.	It focuses only on relational aspects of brand authenticity and does not incorporate dimensions such as heritage, tradition, quality, essence and sincerity.
Morhart; Malär; Guèvremont; Girardin & Grohmann (2014) Brand authenticity: An integrative framework and measurement scale <i>Journal of Consumer Psychology</i>	To develop a framework of the concept of brand authenticity and a scale of perceived brand authenticity (PBA).	4 studies: 1 generation of items and content validity (n = 254); 2 refine the scale (n = 71) using different brands and scale of 15 items obtained from four factors: continuity; credibility; integrity and symbolism) 3 examine the internal validity and 4 analyze the discriminant validity.	Scale with 15 items obtained from four factors: continuity; credibility; integrity and symbolism.	The scale does not cover other dimensions that are part of the brand authenticity construct.

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<p>Kosowski (2015) Autenticidade de Marca: Desenvolvimento de Uma Nova Escala a partir da Avaliação do Consumidor <i>Dissertação de Mestrado</i></p>	<p>To develop a brand authenticity scale based on consumer opinion.</p>	<p>Qualitative interviews and survey (780 people) in Brazil and the United States using the model of Churchill (1979) scale; Tests the discriminant validity of the brand authenticity scale in relation to brand equity.</p>	<p>Scale made of 09 dimensions of brand authenticity: spontaneity; quality; essence; nostalgia; values; simplicity; design; origin and originality.</p>	<p>The brands were named by the respondents and all questions were asked based on the brands previously chosen. All brands chosen by the respondents were product brands, it did not include service brands.</p>
<p>Napoli, Dickinson & Beverland (2016) The Brand Authenticity Continuum: Strategic Approaches for Building Value <i>Journal of Marketing Management</i></p>	<p>To analyze the relationship between BA (brand authenticity) and its value through a strategic framework.</p>	<p>Survey conducted with 312 consumers based on constructs related to brand authenticity that varied in consumer derived values (utilitarianism, hedonism, authenticity and love) and values derived from the brand (brand reputation; brand trust; brand equity). For the measure of consumer authenticity, a measure was generated based on the methodology of Churchill (1979).</p>	<p>They provide a strategic approach to value creation through a continuum of brand authenticity (BA continuum) that ranges from new brands, apprentices and master brands. The continuum is based on four levels: germination, cultivation, consolidation and preservation.</p>	<p>Brands were named by the respondents and all questions were asked based on the brands previously chosen. The sample was chosen for convenience. All brands were chosen by the respondents.</p>
<p>Guevremont & Grohmann (2016) The Brand Authenticity Effect: Situational and Individual-Level Moderators <i>European Journal of Marketing</i></p>	<p>To examine under what conditions consumers develop emotional attachment to authentic brands.</p>	<p>Two experiments tested the effects of brand authenticity on attachment. The first experiment considered the moderating roles of social exclusion and brand engagement in self- concept. Experiment 2 examined the moderation of feelings induced of lasting personal authenticity and personal inauthenticity.</p>	<p>Consumers with a high level of brand engagement showed greater attachment to authentic brands when they felt socially excluded. Consumers with a high level of personal authenticity have shown greater attachment to authentic brands when they experience situations that made them feel inauthentic.</p>	<p>Only one category of products was explored, the one of sports clothes and the brand used was fictitious.</p>

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Ilic & Webster (2016) Being True to Oneself: Investigating Celebrity Brand Authenticity <i>Psychology & Marketing</i>	To investigate the specific dimensions of celebrity authentic brands according to consumers and develop a scale of measurement of celebrity authentic brands.	Method of Churchill (1979) for the development of scales. 160 respondents from a survey in Australia, through a research firm.	The perceptions of celebrity consumers influence their intentions to buy by endorsed brands.	It does not include brand authenticity dimensions exposed in the literature and uses only celebrity dimensions that are "true to oneself." It uses only the category of famous actors and does not include athletes, musicians, politicians. It was tested only in Australia.
Alhouti and Holloway (2016) Corporate Social Responsibility Authenticity: Investigating Its Antecedents and Outcomes <i>Journal of Business Research</i>	To create and validate a CSR authenticity scale, to identify the factors that influence the perceived authenticity of CSR initiatives and to determine the relative importance of authenticity in the success of CSR investments.	The authors collected data using an online survey administered via Qualtrics. 200 respondents.	A company is viewed as authentic (a) when it has passion for the cause and takes a holistic view of how the business impacts all stakeholders, and (b) when its CSR activity is close in proximity, transparent, consistent, visible, and part of the company's identity.	The limitation relates to recruiting survey respondents through snowball sampling using students at southeastern universities. Also, the measures used in the study present the potential for self-report bias.
Akbar and Wymer (2017) Refining the Conceptualization of Brand Authenticity <i>Journal of Brand Management</i>	To evaluate and refine the concept of brand authenticity, propose a new scale and test its validity and reliability.	The authors used the Netemeyer method (2003) for the scale development. 506 respondents. For the validation of the scale they used the PLS-SEM.	The concept of brand authenticity is two-dimensional and is made up of genuineness and originality.	The authors used Mechanical Turk to collect data with only one brand from a nongovernmental organization and did not cover all the literature regarding brand authenticity.
Guèvremont and Grohmann (2017) Does brand authenticity alleviate the effect of brand scandals? <i>Journal of Brand Management</i>	To examine the effect of an ethical scandal on consumer responses towards brands associated with higher (vs. lower) levels of brand authenticity.	228 adult consumers participated in an online experimental study.	Consumers respond more favourably to a more (vs. less) authentic brand in the event of a scandal.	Results based on a single study.

Note. Source: Adapted from Kososki, M. (2015). *Autenticidade de marca: desenvolvimento de uma nova escala a partir da avaliação do consumidor*. 27 de fevereiro de 2015. Dissertação – Universidade Federal do Paraná. Curitiba, Paraná.

APPENDIX B

Experts' Sample

Dear Professor,

The link (bit.ly/maiara01) presents the items that were initially generated, from prevailing literature, to measure brand authenticity.

Please, read, carefully, the definition of each item (Table 1). After that, it is expected that you judge the coherence of the items proposed regarding each dimension. The statements vary from 'not at all representative', 'somewhat representative' and 'clearly representative', on a 3-point Likert scale. After your evaluation, unrepresentative or unclear items will be excluded from the survey. Brand authenticity is the relationship between the construction of brand attributes, which come from its core and are dictated by its supplier, and the individual's perception of those attributes, which are indisputably reflected (*sine qua non*), through commitment to quality, continuity, credibility, genuineness, heritage, integrity, originality, sincerity and values.

In fact, brand authenticity is nothing other than the conformation between the attributes of a brand itself and the capture of those attributes by the consumer; so the brand authenticity is necessarily composed by two terms, prominent authenticity (vendor) and perceived authenticity (individuals that assess the brand).

Thus, an authentic brand maintains its characteristics, consciously and consistently, in the delivery of its products and/or services, even in the most turbulent scenarios, with the risk of being mischaracterized, since authenticity combines, as already seen, components inherited - inseparable from its core, such as its essence, integrity, nature and so on - with elements that are conferred upon it by assessment of its connoisseurs. This is to say that the brand, in the context of authenticity, carries an objective and a subjective part, *ceteris paribus*.

Thank you for your kind cooperation.

Sincerely,
Maiara Kososki

Table 1
Brand authenticity common and specific dimensions

Common Dimensions	Definition according to literature	Author (s)
Commitment to quality	Whether the brand has stringent quality standards and it is maintained while employing finest materials and craftsmanship.	Beverland (2006, 2009); Cohn and Wolfe (2016); Napoli et al (2014)
Continuity	Whether the brand is stable, consistent and permanent. It is timeless, historical and is able to transcend trends.	Bruhn <i>et al</i> (2012); Morhart et al (2014)
Credibility	Whether the brand is transparent and honest towards the consumer, as well as the will and ability to fulfill the claims it makes.	Morhart <i>et al</i> (2014)
Genuineness	Whether the stories told by the brand are grounded in a truth and genuine scenario.	Firefish (2014)
Heritage	Whether the brand has a distinguished heritage an engaging story, builds on long-held traditions, has a strong link to the past and acquire symbolic meanings.	Authentic Brand Index (2008); Beverland (2006, 2009); Kates (2004); Napoli et al (2014)
Integrity	Whether the brand has moral and responsibility towards its costumer.	Morhart <i>et al</i> (2014)
Naturalness	Whether the brand has a preference for natural processes and materials and lacks of artificiality.	Boyle (2004); Bruhn et al (2012); Gilmore and Pine (2007)
Originality	Whether the brand has introduced something new and unique to the market; is particular, individual and innovative and it aspires to be original and master of its own field with perdurance.	Authentic Brand Index (2008); Gilmore and Pine (2007)

Reliability	Whether the brand is truthful and credible keeps and delivers promises.	Bruhn <i>et al</i> (2012); Cohn and Wolfe (2016)
Sincerity	Whether the brand tries not to let people down and compromises with its values and principles.	Authentic Brand Index (2008); Napoli et al (2014)
Values	Whether the brand embodies the chosen values of its founders, proprietors or members, rather than a mere convention of society.	Carroll and Wheaton (2009)

Specific Dimensions	Definition according to literature	Author (s)
Design	Whether the brand maintains its original design, modernizes slowly through innovation and that does not follow trends.	Beverland (2006); Beverland et al (2008); Brown et al (2003); Kozinets (2001)
Craftsmanship	Whether brands are committed to traditions, a passion for art and excellence in production and public repudiation of the role of modern industrial attributes and commercial motivations. A craftsman who pays attention to details and is involved in the entire production process makes the brand.	Beverland (2005); Napoli et al, (2014)
Nostalgia	Whether the brand connects consumer memories with a "golden age" that still perpetuates and has a strong connection with the past.	Napoli et al (2014)
Origin	Whether the brand is proud of its origins, stays original and avoids complacency. It reflects aspects of its production and foundation and beginnings and how loyal it is in demonstrating this to its consumers.	Beverland (2008); Firefish (2014); Newman and Dhar (2014)
Simplicity	Whether the brand minimizes complexity.	Boyle (2004)
Sustainability	Whether the brand wants a 'better tomorrow,' is not exclusively focused on today. It shows its commitment to sustainable development for present and future generations while meeting the needs of its consumers.	Boyle (2004); Gilmore and Pine (2007); Dwivedi and McDonald (2018)
Symbolism	Whether the brand has a symbolic quality that consumers can use to define who they are or who they are not.	Morhart et al (2014)
Self-authenticity	Whether the brands provides means to assure who I am.	Akbar and Wymer (2017)

Note. Source: Adapted from Akbar, M. M., & Wymer, W. (2017). Refining the conceptualization of brand authenticity. *Journal of Brand Management*, 24(14), 1-19.

APPENDIX C

Items for experts' validation (122 items)

Proposed dimension	Item	Author (s)
1. Quality commitment	The brand is committed to always maintaining the quality of its products	Kososki & Prado (2017)
1	The brand uses high quality standards in its manufacturing processes	
2	The brand uses quality standards in its manufacturing processes, which are not easily copied	
3	The brand uses raw materials of high quality for the preparation of its products	
4	Quality is central to the brand	Napoli et al. (2014)
5	Only the finest ingredients/materials are used in the manufacture of this brand	
6	The brand is made to the most exacting standards, where everything the firm does is aimed at improving quality	
7	The brand is manufactured to the most stringent quality standards	
8	It feels like artisan skills and customized manufacturing processes have been retained in the production of this brand	
9	The brand is a potent symbol of continued quality	
10	The brand is made by a master craftsman who pays attention to detail and is involved throughout the production process	
11	The firm is committed to retaining long-held quality standards for the brand	
12	The brand has a mark of distinction that signifies quality	
2. Continuity		
13	I think the brand is consistent over time	Bruhn et al. (2012)
14	I think the brand stays true to itself	
15	the brand offers continuity	
16	The brand has a clear concept that it pursues	
17	It's a brand with a history	Morhart et al. (2014)
18	It's a timeless brand	
19	It's a brand that survives times	
20	It's a brand that survives trends	
21	The brand tries to act in a manner that is consistent with their held values, even if consumers criticise or reject them for doing so	Ilic & Webster (2014)
3. Credibility		
22	The brand will not betray you	Morhart et al. (2014)
23	The brand accomplishes its value promise	

It's an honest brand

24

4. Genuiness		
25	The brand is unpretentious	Akbar & Wymer (2017)
26	The brand is sincere	
27	The brand is real	
28	The brand is honest	
29	The brand is undisguised	
30	The brand is legitimate	
5. Heritage		
	Brand is a brand with tradition	Fritz et al., (2017)
31	The brand is characterized by its own history	
32	The promises of brand are closely linked to its tradition	
33	The brand is conscious of tradition	
6. Integrity		
34	The brand gives back to its consumers	Morhart et al. (2014)
35	The brand has moral principles	
36	The brand is true to a set of moral values	
37	The brand cares about its consumers	
7. Naturalness		
38	The brand does not seem artificial	Bruhn et al. (2012)
39	The brand makes a genuine impression	
40	The brand gives the impression of being natural	
8. Originality		
41	The brand has its own characteristics that differentiate it from its competitors	Kososki & Prado (2017)
42	The products have unique characteristics compared with the products of its competitors	
43	The brand makes me feel different from other brands when I consume it	
44	The brand is unique in its advertising campaigns	
45	The brand is unique in everything it does	
46	The brand is different from all other brands	Bruhn et al. (2012)
47	Brand stands out from other brands	

48	I think the brand is unique	
49	The brand clearly distinguishes itself from other brands	
50	The brand is pioneer	Akbar & Wymer (2017)
51	The brand is innovative	
52	The brand is unique	
53	The brand clearly stands out from other brands	

9. Reliability

54	My experience of the brand has shown me that it keeps its promises	Bruhn et al. (2012)
55	The brand delivers what it promises	
56	Brand's promises are credible	
57	The brand makes reliable promises	
58	The brand delivers what it promises	Akbar & Wymer (2017)
59	The brand embodies what I believe in	Ilic & Webster (2014)
60	Consumers can count on the brand being who they are regardless of the situation	

10. Sincerity

61	The brand remains true to its espoused values	Napoli et al. (2014)
62	The brand refuses to compromise the values upon which it was founded	
63	The brand has stuck to its principles	
64	The brand builds on traditions that began with its founder	
65	The brand stays true to itself	Akbar & Wymer (2017)
66	The brand rarely, if ever, puts on a 'false face' for consumers to see	Ilic & Webster (2014)
67	The brand frequently pretends to deliver something when in actuality they really do not (r)	
68	Consumers would be shocked or surprised if they discovered what the brand keeps privileged	
69	The brand wants consumers to understand its strengths	
70	The brand wants consumers to understand its weaknesses	
71	The brand cares about openness and honesty in close relationships with consumers	
72	The brand, in general, places a good deal of importance on consumers understanding who they truly are	
73	The brand makes a point to express to consumers how much they truly care for them	
74	The brand wants consumers to understand the real them rather than just their public 'image'	

75	Consumers, if asked, could accurately describe what kind of brand	
76	The brand finds it easy to pretend to stand for something other than their true brand identity	
77	The brand would ignore an issue rather than constructively work it out if in disagreement with a consumer	
<hr/>		
11. Values		
<hr/>		
78	The advertising campaigns of the brand represent its values	Kososki & Prado (2017)
79	The brand has embedded values	
80	The brand reflects integrity to its consumers	
81	The current position of the brand reflects its values	
82	The brand has never disappointed me in relation to its values	
83	The brand behaves in ways that typically expresses its values	Ilic & Webster (2014)
84	The brand is willing to endure negative consequences by expressing its true beliefs and values	
85	The brand believes it is important for consumers to understand its values and goals	
<hr/>		
12. Design		
<hr/>		
86	The design of the brand is timeless	Kososki & Prado (2017)
87	Despite innovating the brand retains its original design features in its products	
88	The brand design is unique	
89	The brand has unique design features which are not easily imitable	
90	The brand design does not follow trends	
91	The brand has focus on the design of its products	
<hr/>		
13. Craftsmanship		
<hr/>		
92	The brand has constant care in the manufacturing process of its products	Kososki & Prado (2017)
93	The brand reflects unique features in its products	
94	The brand preserves handmade elements in its manufacturing process	
<hr/>		
14. Simplicity		
<hr/>		
95	The brand reflects elements of simplicity in its products	Kososki & Prado (2017)
96	The brand has a clear purpose for its consumers	
97	The brand simplifies my decision to purchase	
98	The brand has clear practices to its consumers	
<hr/>		
15. Origin		
<hr/>		
99	The brand reflects the essential characteristics of its place of origin	Kososki & Prado (2017)

100	The brand is rooted with values from its place of origin	
101	The brand uses in its manufacturing process products from its place of origin	
<hr/>		
16. Nostalgia		
<hr/>		
102	The brand reminds me of a specific place in my life	Kososki & Prado (2017)
103	The brand reminds me of a specific moment in my life	
104	The brand reminds me of something important I've done in my life	
105	The brand reminds me of an important person in my life	
		Napoli et al. (2014)
<hr/>		
106	The brand has a strong connection to an historical period in time, culture and/or specific region	
107	The brand has a strong link to the past, which is still perpetuated and celebrated to this day	
108	The brand reminds me of a golden age	
109	The brand exudes a sense of tradition	
110	The brand reinforces and builds on long-held traditions	
111	The brand reflects a timeless design	
<hr/>		
17. Self-authenticity		
<hr/>		
112	I think brand helps me to become the type of person I want to be	Akbar & Wymer (2017)
113	The brand reflects who I am	
114	I can identify myself with the brand	
115	I feel a strong sense of belonging to the brand	
<hr/>		
18. Symbolism		
<hr/>		
116	The brand adds meaning to people's lives	Morhart et al. (2014)
117	The brand reflects important values people care about	
118	The brand connects people with their real selves	
119	The brand connects people with what is really important	
<hr/>		
19. Sustainability	The brand believes in philanthropy and giving generously to worthy causes	Dwivedi & McDonald (2018)
<hr/>		
120	The brand is genuinely concerned about consumer welfare	
121	The brand is highly concerned about environmental issues	
122	The brand is highly involved in community activities	

APPENDIX D**Screenshot of experts' questionnaire on Qualtrics®**

Q1.

COMMITMENT TO QUALITY

The brand is committed to always maintaining the quality of its products.

Not at all
representative

☐

Somewhat
representative

☐

Clearly representative

☐

Q14.

CONTINUITY

I think the brand is consistent over time.

Not at all
representative

☐

Somewhat
representative

☐

Clearly representative

☐

Q23.

CREDIBILITY

The brand will not betray you.

Not at all
representative

☐

Somewhat
representative

☐

Clearly representative

☐

APPENDIX E

Brand authenticity dimensions found on literature

Name	Definition according to literature	Author (s)
Adhering to principles	Whether the brand is faithful to its internal values and mission statement and truthful with customers	Coary (2013)
Advertising	Whether the brand communicates thorough its ubiquity and memorability	
Beautiful	Whether the brand is prominent on harmony and aesthetics	Boyle (2004)
Being the category pioneer	Whether the brand is first in the market or inventor of the product	Coary (2013)
Congruency	Whether the brand values and employee values are congruous and how employees are committed to fulfill value requirements	Eggers <i>et al</i> (2013)
Consistency I	Whether promises made to stakeholders are aligned with brand values and strategies to achieve consistency amongst all brand elements	Eggerset <i>et al</i> (2013)
Consistency II	Whether the brand is consistent, passionate and honest	Firefish (2014); Vision Critical (2016)
Continuity I	Whether the brand is stable, consistent and permanent	Bruhn <i>et al</i> (2012)
Continuity II	Whether a brand is timeless, historical and is able to transcend trends	Morhart <i>et al</i> (2014)
Credibility	Whether the brand is transparent and honest towards the consumer, as well as it has the will and the ability to fulfill the claims it makes	Morhart <i>et al</i> (2014)
Culture	Whether the brand maintains and connects the culture between employees and the audience the culture exist in	Firefish (2014)
Customer orientation	Whether the brand understands and satisfies the customers' and stakeholders' needs by providing 'individualized benefits,' as promised	Eggers <i>et al</i> (2013)
Declared beliefs	Whether the brand stands for more than just making money and share what it believes in	Authentic Brand Index (2008); Vision Critical (2016)
Design	Whether the brands maintains its original design, modernizes slowly through innovation and that does not follow trends	Beverland (2006); Beverland <i>et al</i> (2008); Brown <i>et al</i> (2003); Kozinets (2001)
Downplaying commercial motives	Whether the brand stands for something more than its commercial success	Beverland (2006)
Engagement	Whether the brand engages with its customers	Vision Critical (2016)
Ethical	Whether the brand and its products can be trusted	Boyle (2004)
Familiarity	Whether the brand is well known	Authentic Brand Index (2008)
Genuineness	Whether the stories told by the brand are grounded in a truth and genuine	Firefish (2014)
Handcrafted	Whether brands are committed to traditions, a passion for art and excellence in production and public repudiation of the role of modern industrial attributes and commercial motivations. The brand is made by a craftsman who pays attention to detail and is involved in the entire production process	Beverland (2005); Napoli <i>et al</i> , (2014)

Heritage I	Whether the brand has an engaging story	Authentic Brand Index (2008)
Heritage II	Whether the brand builds on long-held traditions and timeless design and it has a strong link to the past and acquire symbolic meanings	Napoli <i>et al</i> (2014); Kates (2004)
Heritage and pedigree	Whether the brand has a distinguished heritage and maintains its traditions	Beverland (2006, 2009)
Honest	Whether the brand avoids all forms of dishonesty	Boyle (2004)
Human	Whether humanity is emphasized by the brand	Boyle (2004)
Innovation	Whether the brand is visionary	Firefish (2014)
Integrity	Whether the brand has moral and responsibility towards its costumer	Morhart <i>et al</i> (2014)
Maintaining the original product	Whether the brand maintains its original product(s) without a compromise	Coary (2013)
Method of production	Whether the brand maintains exacting production process with the help of some devoted and skilled people	Beverland (2006)
Momentum	Whether the brand appears to become ever more popular	Authentic Brand Index (2008)
Narrative	Whether the brand chooses a narrative through integrity and steers clear of stereotyping	Firefish (2014)
Natural	Whether the brand has a preference for natural processes and materials	Boyle (2004); Gilmore and Pine (2007)
Naturalness	Whether the brand is genuine, real and lacks of artificiality	Bruhn <i>et al</i> (2012)
Nostalgia	Whether the brand connects consumer memories with a "golden age" that still perpetuates and has a strong connection with the past	Napoli <i>et al</i> (2014)
Origin	Whether the brand is proud of its origins, stays original and avoids complacency. It reflects aspects of its production and foundation and beginnings and how loyal it is in demonstrating this to its consumers	Beverland (2008); Firefish (2014); Newman and Dhar (2014)
Originality I	Whether the brand has introduced something new and unique to the market	Authentic Brand Index (2008); Gilmore and Pine (2009)
Originality II	Whether a brand is particular, individual and innovative and it aspires to be original and master of its own field with perdurance	Bruhn <i>et al</i> (2012); Derbaix (2007); Firefish (2014)
Personal utility	Whether the customers feel that they cannot live without the real utility delivered by the brand	Authentic Brand Index (2008)
Quality commitment I	Whether the brand has uncompromising quality commitment	Beverland (2006, 2009); Cohn and Wolfe (2016)
Quality commitment II	Whether stringent quality standards are maintained by the brand while employing finest materials and craftsmanship. The brand ensures quality standards and is passionate for the craft leads to sustained performance.	Napoli <i>et al</i> (2014); Napoli <i>et al.</i> , 2016
Real	Whether the brand communicates honestly, truthfully and acts with integrity	Fine (2003); Cohn and Wolfe (2016)
Relationship to place	Whether the brand is rooted in a region, which has a unique reputation to be celebrated and aims to celebrate it	Beverland (2006)

Reliability	Whether the brand is truthful and credible, keeps and delivers promises	Bruhn <i>et al</i> (2012); Cohn and Wolfe (2016)
Respectful	Whether the brand treats customers well	Cohn and Wolfe (2016)
Rooted	Whether the brand is connected to a place and time of origin	Boyle (2004)
Simple	Whether the brand minimizes complexity	Boyle (2004)
Sincerity I	Whether the brand tries not to let people down. The extent to which a firm is true to its spirit and its purpose for being	Authentic Brand Index (2008); Liao & Ma (2009)
Sincerity II	Whether the brand refuses to compromise its values and principles	Napoli <i>et al</i> (2014)
Sponsorship	Whether the brand has sponsorship activities judged as appropriate and favourable	
Social media	Whether the brand has social media activities judged as appropriate and favourable	
Stylistic consistency	Whether the brand follows its production traditions consistently and does not compromise to appear trendy or fashionable	Beverland (2006)
Sustainable	Whether the brand wants a 'better tomorrow,' is not exclusively focused on today. It shows its commitment to sustainable development for present and future generations while meeting the needs of its consumers	Boyle (2004); Gilmore and Pine (2007); Dwivedi and McDonald (2018)
Symbolism	Whether the brand has a symbolic quality that consumers can use to define who they are or who they are not	Morhart <i>et al</i> (2014)
Tradition	Whether the brand is contrary to ephemerality and is based on principles that perpetuates itself through time through history	Brown <i>et al</i> (2003); Chhabra <i>et al</i> (2003); Peñaloza (2000); Postrel (2003)
Three-dimensional	Whether the brand provides deep and vivid experiences and speak to human experience	Boyle (2004); Gilmore and Pine (2007); Vision Critical (2016)
Truthfulness	Whether the brand is bold and brave	Firefish (2014)
Uniqueness	Whether the brand is unique and meaningful through imperfections and idiosyncrasies	Firefish (2014)
Unspun	Whether the brand is candid and not manipulative	Boyle (2004)
Values	Whether the brand embodies the chosen values of its founders, proprietors or members, rather than a mere convention of society	Carroll and Wheaton (2009)
Self authenticity	Whether the brands helps consumer's internal needs for pleasure, love and self-identification	Napoli <i>et al</i> (2016)

APPENDIX F

Questionnaire in Portuguese

Olá! Sou doutoranda em Administração na Universidade Federal do Paraná, em Curitiba. Este estudo é um requisito para a conclusão dos meus estudos no Programa de Doutorado, da UFPR. O questionário é baseado em Autenticidade de Marca e dura entre 10 e 15 minutos. Suas informações e respostas permanecerão estritamente confidenciais. Os respondentes que completarem o questionário e deixarem seu e-mail, no final, concorrem a um vale-presente de R\$120,00 da Riga. O sorteio será no dia 20/12/2018.

Para maiores informações sobre a Riga acesse:

<http://www.rigayachting.com>

Atenciosamente,

Doutoranda: Maiara Kososki

Orientador: Professor Dr. Paulo Prado

Q01 Você já comprou algum produto desta marca ou usou os seus serviços?

Sim

Não

Q02 Você compra, regularmente, produtos desta marca ou usa os seus serviços?

Sim

Não

Integridade

IN01 A marca tem fortes princípios.

IN02 A marca possui valores.

IN03 A marca nunca me decepcionou em relação aos seus princípios.

IN04 As campanhas publicitárias da marca representam seus valores.

IN05 A marca mantém seus princípios independentemente do cenário em que se encontra.

Sinceridade

SI01 A marca é honesta.

SI02 A marca se comunica de forma honesta.

SI03 A marca não é hipócrita.

SI04 A marca quer que os consumidores conheçam seus pontos fortes.

SI05 A marca quer que os consumidores conheçam suas fraquezas.

SI06 A marca age de forma aberta com os consumidores.

Herança

HE01 A marca tem sua própria história.

HE02 As promessas da marca estão ligadas à sua tradição.

HE03 As promessas da marca são transmitidas ao longo do tempo.

HE04 A marca se sai bem em épocas turbulentas e também em épocas tranquilas.

HE05 A marca transmite segurança, ou seja, ela não vai desaparecer amanhã.

Qualidade

QC01 A marca utiliza altos padrões de qualidade em seus processos de fabricação que não são facilmente copiados.

QC02 A marca oferece alta qualidade em seus produtos ou serviços, ou seja, a qualidade é central para a marca.

QC03 A marca oferece qualidade ao longo do tempo.

QC04 A marca está sempre melhorando a qualidade.

QC05 A marca é a melhor da sua categoria.

- QC06 A marca se difere das demais pelo seu alto nível de qualidade.
 QC07 A marca mantém suas características ao longo do tempo, sem mudanças essenciais.
 QC08 Se você está lendo essa frase, escolha 4.

Continuidade

- CO01 A marca mantém suas características ao longo do tempo, sem mudanças essenciais
 CO02 A marca é atemporal.
 CO03 A marca sobrevive a todas as épocas.
 CO04 A marca sobrevive em meio às tendências.

Credibilidade

- CR01 A marca cumpre o que promete.
 CR02 A marca é confiável.
 CR03 A marca faz promessas confiáveis.
 CR04 A marca age da maneira que eu acredito.
 CR05 A marca entrega sua promessa de valor.
 CR06 A marca atua de acordo com as expectativas dos consumidores.
 CR07 A marca me faz acreditar nela.

Genuinidade

- GE01 A marca é real.
 GE02 A marca é legítima.
 GE03 A marca é sincera.
 GE04 A marca é genuína.

Originalidade

- OY01 A marca é pioneira.
 OY02 A marca é inovadora.
 OY03 A marca é única em tudo o que faz.
 OY04 A marca é diferente de todas as outras marcas.
 OY05 A marca me faz sentir diferente de outras marcas quando eu a consumo.

Design

- DE01 O design da marca é atemporal.
 DE02 O design da marca é único.
 DE03 Apesar de inovadora, a marca mantém seu design original em seus produtos.
 DE04 A marca possui design exclusivo que não é facilmente imitável.
 DE05 A marca tem como foco o design de seus produtos.
 DE06 Se você está lendo essa frase, escolha 4.

Simbolismo

- SY01 A marca agrega significado à vida das pessoas.
 SY02 A marca reflete valores importantes com os quais as pessoas se importam.
 SY03 A marca conecta as pessoas com o que é importante.

Nostalgia

- NO01 A marca me lembra de um lugar específico na minha vida.
 NO02 A marca me lembra de um momento específico da minha vida.
 NO03 A marca me lembra algo importante que fiz na minha vida.
 NO04 A marca me lembra uma pessoa importante na minha vida.
 NO05 A marca tem uma forte ligação com o passado, que ainda se perpetua até hoje.
 NO06 A marca me lembra uma época de ouro.

Artesanal

- CP01 A marca possui elementos artesanais em seu processo de fabricação.
 CP02 Processos de fabricação artesanais e personalizados são usados nesta marca.
 CP03 Somente os melhores ingredientes/materiais são utilizados na fabricação dos produtos desta marca.

Autenticidade do Self

- SA01 A marca reflete quem eu sou.
- SA02 A marca me ajuda a ser o tipo de pessoa que quero ser.
- SA03 A marca me ajuda a construir o meu "eu real".
- SA04 Sinto um forte senso de pertencimento à marca.
- SA05 Eu me identifico com a marca.
- SA06 Se voce está lendo esta frase, escolha 4.

Responsabilidade Social Corporativa

- CS01 A marca ajuda causas nobres.
- CS02 A marca acredita em um "amanhã melhor".
- CS03 A marca se preocupa com questões ambientais.
- CS04 A marca está envolvida em atividades comunitárias.
- CS05 A marca tem preferência por processos e materiais naturais.

Origem

- ON01 A marca reflete as características essenciais do seu local de origem.
- ON02 A marca está enraizada com os valores do seu local de origem.
- ON03 A marca utiliza em seus processos de fabricação produtos de seu local de origem.
- ON04 O país de origem da marca representa sua verdadeira essência.
- ON05 Se você está lendo essa frase, escolha 4.

Intenção de Compra

- PI01 Qual a probabilidade de você adquirir um produto desta marca ou usar seus serviços?

Atitude em relação à marca

BA01 Boa-ruim

- 1 Muito ruim
- 2 Ruim
- 3 Um pouco ruim
- 4 Nem boa e nem ruim
- 5 Um pouco boa
- 6 Boa
- 7 Muito boa

BA02 Gosto-não gosto

- 1 Desgosto muito
- 2 Desgosto
- 3 Desgosto um pouco
- 4 Nem gosto, nem desgosto
- 5 Gosto um pouco
- 6 Gosto
- 7 Gosto muito

Lealdade à marca

BL01 Eu me considero fiel à essa marca.

- 1 Discordo totalmente
- 2 Discordo
- 3 Discordo parcialmente
- 4 Nem concordo nem discordo
- 5 Concordo parcialmente
- 6 Concordo
- 7 Concordo plenamente

BL02 Não comprarei outras marcas se esta marca estiver disponível.

- 1 Discordo totalmente
- 2 Discordo
- 3 Discordo parcialmente
- 4 Nem concordo nem discordo
- 5 Concordo parcialmente
- 6 Concordo
- 7 Concordo plenamente

Boca-a-Boca

WM01 Você dirá a seus amigos e conhecidos coisas positivas sobre esta marca?

- 1 Definitivamente não
- 2 Muito provavelmente não
- 3 Provavelmente não
- 4 Não tenho certeza
- 5 Provavelmente sim
- 6 Muito provavelmente sim
- 7 Definitivamente sim

Autenticidade

AY01 Quando você pensa sobre o que significa ser verdadeiramente autêntico, o que você diria sobre essa marca?

- 1 Muito inautêntica
- 2 Inautêntica
- 3 Um pouco inautêntica
- 4 Nem autêntica, nem inautêntica
- 5 Um pouco autêntica
- 6 Autêntica
- 7 Muito autêntica

Imagem de Marca

BI01 Algumas características da marca chegam rapidamente à minha memória.

BI02 Eu reconheço rapidamente o símbolo (ou logo) da marca.

BI03 Eu tenho dificuldade em lembrar da marca na minha mente.

Personalidade de Marca

- BP01 pé no chão
- BP02 estável
- BP03 responsável
- BP04 ativa
- BP05 dinâmica
- BP06 inovativa
- BP07 agressiva
- BP08 forte
- BP09 comum
- BP10 simples
- BP11 romântica
- BP12 sentimental

Psicográfico

- PS01 Eu costumo manipular os outros para conseguir o que eu quero.
 PS02 Eu já menti para conseguir coisas que eu queria.
 PS03 Eu já bajulei para conseguir coisas que queria.
 PS04 Eu costumo explorar os outros para o meu próprio bem.
 PS05 A minha tendência é de não sentir remorso.
 PS06 Eu não me preocupo com a moralidade das minhas ações.
 PS07 Eu costumo ser insensível.
 PS08 Minha tendência é a de ser cínico.
 PS09 Eu tenho a tendência de querer que os outros me admirem.
 PS10 Eu tenho a tendência de querer que os outros prestem atenção em mim.
 PS11 Eu tenho a tendência de conquistar prestígio ou status.
 PS12 Eu tenho a tendência de esperar por favores dos outros.
 PS13 Se você está lendo essa frase, escolha 4 na próxima questão.

Demográficos

Q04 Idade

Q05 Nível de Escolaridade

- 01 Menos do que o ensino médio
 02 Ensino médio
 03 Ensino superior
 04 Especialização
 05 Mestrado
 06 Doutorado
 07 Pós doutorado

Q06 País

- 01 Brasil
 02 Estados Unidos
 03 Outro

Q07 Renda Familiar

- 01 Nenhuma
 02 até um salário mínimo (R\$937,00)
 03 entre 1 e 3 salários mínimos (R\$2.811,00)
 04 entre 4 e 6 salários mínimos (R\$5.622,00)
 05 entre 7 e 10 salários mínimos (R\$9.370,00)
 06 mais que 11 salários mínimos (R\$10.307,00)

Q08 Gênero

- 01 Masculino
 02 Feminino
 03 Outro

Q09 Língua

- 01 Português
 02 Inglês

Q10 Deficiência

- 01 Sim
 02 Não

APPENDIX G

Screenshot of questionnaire in Portuguese on Qualtrics®

Você já comprou algum produto desta marca ou usou os seus serviços?

Pepsi  pepsi

Não

Sim

Você compra, regularmente, produtos desta marca ou usa os seus serviços?

Pepsi  pepsi

Sim

Não

APPENDIX H

Items after experts' refinement (74 items)

#	Dimension	Item
Integrity		
1	The brand has strong moral principles.	IN01
2	The brand has embedded values.	IN02
3	The brand has never disappointed me in relation to its values.	IN03
4	The advertising campaigns of the brand represent its values.	IN04
5	The brand maintains its principles regardless the scenario.	IN05
Sincerity		
6	The brand is honest.	SI01
7	The brand communicates honestly.	SI02
8	The brand is free from hypocrisy.	SI03
9	The brand wants consumers to understand its strengths.	SI04
10	The brand wants consumers to understand its weaknesses.	SI05
11	The brand cares about openness in close relationships with consumers.	SI06
Heritage		
12	The brand is characterized by its own history.	HE01
13	The brand promises are closely linked to its tradition.	HE02
14	The brand promises are transmitted over time.	HE03
15	The brand manages the tough times as well as the good times.	HE04
16	The brand transmits security: it won't disappear tomorrow.	HE05
Quality Commitment		
17	The brand uses high quality standards in its manufacturing processes, which are not easily copied.	QC01
18	The brand provides high quality in its products or services, i.e. quality is central to the brand.	QC02
19	The brand provides consistent quality over time.	QC03
20	The brand is always improving quality.	QC04
21	The brand is the best in its category.	QC05
22	The brand differs from others by its high level of quality.	QC06
23	The brand maintains its characteristics over time without essential changes.	QC07
Continuity		
24	The brand maintains itself over time without essential changes.	CO01
25	The brand is timeless.	CO02
26	The brand survives times.	CO03
27	The brand survives trends.	CO04
Credibility		
28	The brand delivers what it promises.	CR01
29	The brand is trustworthy.	CR02
30	The brand makes reliable promises.	CR03
31	The brand embodies what I believe in.	CR04
32	The brand accomplishes its value promise.	CR05
33	The brand performs according to consumers' expectations.	CR06
34	The brand inspires beliefs.	CR07
Genuineness		
35	The brand is real.	GE01
36	The brand is legitimate.	GE02
37	The brand is candid.	GE03
38	The brand is genuine.	GE04
Originality		
39	The brand is pioneer	OY01

40	The brand is innovative.	OY02
41	The brand is unique in everything it does.	OY03
42	The brand is different from all other brands.	OY04
43	The brand makes me feel different from other brands when I consume it.	OY05
Design		
44	The brand's design is timeless.	DE01
45	The brand's design is unique.	DE02
46	Despite innovating, the brand retains its original design features in its products.	DE03
47	The brand has unique design features that are not easily imitable.	DE04
48	The brand focuses on the design of its products.	DE05
Symbolism		
49	The brand adds meaning to people's lives.	SY01
50	The brand reflects important values people care about.	SY02
51	The brand connects people with what is really important.	SY03
Nostalgia		
52	The brand reminds me of a specific place in my life.	NO01
53	The brand reminds me of a specific moment in my life.	NO02
54	The brand reminds me of something important I've done in my life.	NO03
55	The brand reminds me of an important person in my life.	NO04
56	The brand has a strong link to the past, which is still perpetuated to this day.	NO05
57	The brand reminds me of a golden age.	NO06
Craftsmanship		
58	The brand preserves handmade elements in its manufacturing process.	CP01
59	It feels like artisan skills and customized manufacturing processes have been retained in the production of this brand.	CP02
60	Only the finest ingredients/materials are used in the manufacture of this brand.	CP03
Self-Authenticity		
61	The brand reflects who I am.	SA01
62	The brand helps me to become the type of person I want to be.	SA02
63	The brand helps me to build the "real me".	SA03
64	I feel a strong sense of belonging to the brand.	SA04
65	I can identify myself with the brand.	SA05
Corporate Social Responsibility		
66	The brand believes in giving to worthy causes.	CS01
67	The brand wants a "better tomorrow".	CS02
68	The brand is concerned about environmental issues.	CS03
69	The brand is involved in community activities.	CS04
70	The brand has a preference for natural processes and materials.	CS05
Origin		
71	The brand reflects the essential characteristics of its place of origin.	ON01
72	The brand is rooted with values from its place of origin.	ON02
73	The brand uses in its manufacturing process products from its place of origin.	ON03
74	The country of origin of the brand represents its true essence.	ON04

APPENDIX I

Brand authenticity final scale in order of importance to the hierarchy (57 items)

Global dimensions (27 items)	
Continuity	
CO1	The brand is timeless.
CO2	The brand survives times.
CO3	The brand survives trends.
Heritage	
HE1	The brand is characterized by its own history.
HE2	The brand promises are closely linked to its tradition.
HE3	The brand promises are transmitted over time.
HE4	The brand manages the tough times as well as the good times.
HE5	The brand transmits security: it won't disappear tomorrow.
Quality Commitment	
	The brand provides high quality in its products or services, i.e. quality is central to the brand.
QC1	
QC2	The brand provides consistent quality over time.
QC3	The brand differs from others by its high level of quality.
Credibility	
CR1	The brand delivers what it promises.
CR2	The brand is trustworthy.
CR3	The brand makes reliable promises.
CR4	The brand embodies what I believe in.
Integrity	
IN1	The brand has strong moral principles.
IN2	The brand has embedded values.
IN3	The brand has never disappointed me in relation to its values.
IN4	The advertising campaigns of the brand represent its values.
IN5	The brand maintains its principles regardless the scenario.
Design	
DE1	The brand's design is unique.
DE2	Despite innovating, the brand retains its original design features in its products.
DE3	The brand has unique design features that are not easily imitable.
DE4	The brand focuses on the design of its products.
Symbolism	
SY1	The brand adds meaning to people's lives.
SY2	The brand reflects important values people care about.
SY3	The brand connects people with what is really important.
Specific dimensions (30 items)	
Originality	
OY1	The brand is pioneer
OY2	The brand is innovative.
OY3	The brand is unique in everything it does.
OY4	The brand is different from all other brands.
OY5	The brand makes me feel different from other brands when I consume it.

(Continued)

Sincerity	
SI1	The brand is honest.
SI2	The brand communicates honestly.
SI3	The brand is free from hypocrisy.
Origin	
ON1	The brand reflects the essential characteristics of its place of origin.
ON2	The brand is rooted with values from its place of origin.
ON3	The brand uses in its manufacturing process products from its place of origin.
ON4	The country of origin of the brand represents its true essence.
Corporate Social Responsibility	
CS1	The brand believes in giving to worthy causes.
CS2	The brand wants a "better tomorrow".
CS3	The brand is concerned about environmental issues.
CS4	The brand is involved in community activities.
CS5	The brand has a preference for natural processes and materials.
Craftsmanship	
CP1	The brand preserves handmade elements in its manufacturing process. It feels like artisan skills and customized manufacturing processes have been retained in the production of this brand.
CP2	
Nostalgia	
NO1	The brand reminds me of a specific place in my life.
NO2	The brand reminds me of a specific moment in my life.
NO3	The brand reminds me of something important I've done in my life.
NO4	The brand reminds me of an important person in my life.
NO5	The brand has a strong link to the past, which is still perpetuated to this day.
NO6	The brand reminds me of a golden age.
Self Authenticity	
SA1	The brand reflects who I am.
SA2	The brand helps me to become the type of person I want to be.
SA3	The brand helps me to build the "real me".
SA4	I feel a strong sense of belonging to the brand.
SA5	I can identify myself with the brand.

APPENDIX J

Brand authenticity reduced scale

Brand authenticity reduced scale

Genuineness

GE1	The brand is real.
GE2	The brand is legitimate.
GE3	The brand is truthful.
GE4	The brand is genuine.

APPENDIX K

Brand authenticity reduced scale

Total variance explained for 'Brazil + USA' sample				
Factor		Total	% of Variance	Cumulative %
1	credibility	30.106	41.241	41.241
2	nostalgia	5.11	7	48.241
3	integrity	3.245	4.445	52.686
4	corporate social responsibility	2.591	3.549	56.235
5	heritage	2.316	3.173	59.408
6	craftmanship	1.578	2.162	61.57
7	design	1.365	1.869	63.439
8	origin	1.269	1.739	65.178
9	self-authenticity	1.2	1.643	66.821
10	genuineness	1.124	1.539	68.361
11	originality	1.061	1.453	69.814
12	symbolism	0.887	1.215	71.029
13	continuity	0.87	1.191	72.22
14	sincerity	0.851	1.166	73.386
15	quality commitment	0.715	0.98	74.366
Total variance explained for 'Brazil' sample				
Factor		Total	% of Variance	Cumulative %
1	credibility	25,87	35,438	35,438
2	nostalgia	5,27	7,219	42,657
3	integrity	3,373	4,621	47,278
4	corporate social responsibility	2,927	4,01	51,288
5	heritage	2,382	3,262	54,55
6	craftmanship	1,814	2,485	57,036
7	design	1,662	2,277	59,312
8	origin	1,527	2,092	61,404
9	self-authenticity	1,468	2,01	63,415
10	genuineness	1,319	1,806	65,221
11	originality	1,208	1,654	66,875
12	symbolism	1,091	1,495	68,37
13	continuity	1,013	1,387	69,758
14	sincerity	0,895	1,226	70,983
15	quality commitment	0,846	1,158	72,142
Total variance explained for 'USA' sample				
Factor		Total	% of Variance	Cumulative %
1	credibility	34,28	46,959	46,959
2	nostalgia	5,202	7,126	54,085
3	integrity	2,551	3,495	57,58
4	corporate social responsibility	2,429	3,328	60,907
5	heritage	2,182	2,989	63,896
6	craftmanship	1,542	2,112	66,009
7	design	1,2	1,644	67,652
8	origin	1,103	1,511	69,163
9	self-authenticity	1,022	1,399	70,563
10	genuineness	0,978	1,339	71,902
11	originality	0,878	1,202	73,104
12	symbolism	0,87	1,192	74,296
13	continuity	0,839	1,149	75,445
14	sincerity	0,753	1,031	76,476
15	quality commitment	0,659	0,903	77,379

APPENDIX L

EFA and internal consistency of brand authenticity 'continuity' factor

Dimension	Item	BR	US	BR + US
Continuity		α .74	α .89	α .84
CO1	The brand maintains itself over time without essential changes.	.49	.63	.52
CO2	The brand is timeless.	.48	.60	.74
CO3	The brand survives times.	.47	.67	.6
CO4	The brand survives trends.	.45	.67	.52
Craftsmanship		.78	.90	.86
CP1	The brand preserves handmade elements in its manufacturing process.	.90	.72	.81
CP2	It feels like artisan skills and customized manufacturing processes have been retained in the production of this brand.	.88	.71	.80
CP3	Only the finest ingredients/materials are used in the manufacture of this brand.	.84	.63	.55
Credibility		.91	.89	.90
CR1	The brand delivers what it promises.	.61	.53	.42
CR2	The brand is trustworthy.	.54	.57	.42
CR3	The brand makes reliable promises.	.52	.51	.42
CR4	The brand embodies what I believe in.	.49	.58	.40
Corporate Social Responsibility		.89	.90	.90
CS1	The brand believes in giving to worthy causes.	.82	.70	.79
CS2	The brand wants a "better tomorrow".	.76	.60	.71
CS3	The brand is concerned about environmental issues.	.81	.68	.79
CS4	The brand is involved in community activities.	.85	.82	.84
CS5	The brand has a preference for natural processes and materials.	.67	.43	.58
Design		.80	.86	.83
DE2	The brand's design is unique.	.80	.74	.74
DE3	Despite innovating, the brand retains its original design features in its products.	.46	.43	.48
DE4	The brand has unique design features that are not easily imitable.	.68	.64	.74
DE5	The brand focuses on the design of its products.	.67	.70	.64
Genuineness		.86	.87	.87
GE1	The brand is real.	.83	.86	.89
GE2	The brand is legitimate.	.84	.77	.84
GE3	The brand is candid.	.53	.46	.42
GE4	The brand is genuine.	.70	.71	.75
Heritage		.84	.85	.85
HE1	The brand is characterized by its own history.	.46	.65	.49
HE2	The brand promises are closely linked to its tradition.	.46	.47	.48
HE3	The brand promises are transmitted over time.	.45	.52	.53
HE4	The brand manages the tough times as well as the good times.	.48	.41	.54
HE5	The brand transmits security: it won't disappear tomorrow.	.53	.52	.52

(Continued)

(Continued)

Integrity		.87	.91	.90
IN1	The brand has strong moral principles.	.83	.50	.75
IN2	The brand has embedded values.	.71	.75	.77
IN3	The brand has never disappointed me in relation to its values.	.64	.54	.62
IN4	The advertising campaigns of the brand represent its values.	.66	.69	.68
IN5	The brand maintains its principles regardless the scenario.	.75	.67	.76
Nostalgia		.93	.93	.93
NO1	The brand reminds me of a specific place in my life.	.87	.85	.90
NO3	The brand reminds me of something important I've done in my life.	.84	.64	.76
NO4	The brand reminds me of an important person in my life.	.88	.69	.82
NO5	The brand has a strong link to the past. which is still perpetuated to this day.	.69	.67	.70
NO6	The brand reminds me of a golden age.	.78	.73	.78
Origin		.86	.93	.90
ON1	The brand reflects the essential characteristics of its place of origin.	.85	.92	.91
ON2	The brand is rooted with values from its place of origin.	.79	.89	.87
ON3	The brand uses in its manufacturing process products from its place of origin.	.68	.76	.72
ON4	The country of origin of the brand represents its true essence.	.89	.94	.94
Originality		.86	.90	.85
OY1	The brand is pioneer	.67	.68	.67
OY2	The brand is innovative.	.5	.53	.51
OY3	The brand is unique in everything it does.	.7	.47	.57
OY4	The brand is different from all other brands.	.68	.57	.69
OY5	The brand makes me feel different from other brands when I consume it.	.53	.44	.54
Quality Commitment		.88	.88	.88
QC2	The brand provides high quality in its products or services. i.e. quality is central to the brand.	.48	.54	.47
QC3	The brand provides consistent quality over time.	.47	.54	.43
QC6	The brand differs from others by its high level of quality.	.46	.52	.42
Self-Authenticity		.93	.96	.95
SA1	The brand reflects who I am.	.85	.83	.88
SA2	The brand helps me to become the type of person I want to be.	.93	.81	.92
SA3	The brand helps me to build the "real me".	.86	.85	.89
SA4	I feel a strong sense of belonging to the brand.	.81	.78	.84
SA5	I can identify myself with the brand.	.59	.76	.70
Sincerity		.85	.90	.88
SI1	The brand is honest.	.58	.49	.43
SI2	The brand communicates honestly.	.65	.49	.42
SI3	The brand is free from hypocrisy.	.6	.48	.47
Symbolism		.89	.90	.90
SY1	The brand adds meaning to people's lives.	.69	.67	.82
SY2	The brand reflects important values people care about.	.65	.56	.72

APPENDIX M

Model fit

Model 01												
	Sample	n	CFI	GFI	AGFI	NFI	RMSEA	RMR	TLI	AVE	CR	α
1	Brazil	567	.83	.87	.90	.80	.05	.08	.80	.43	.71	.81
2	USA	721	.83	.88	.88	.80	.05	.08	.82	.43	.70	.79
3	Brazil + USA	1288	.87	.88	.88	.81	.05	.08	.82	.39	.73	.78

APPENDIX N

CFA loadings for brazilian and american sample merged

Item	BR + USA
Sincerity	.73
SI1_3	.46
SI1_2	.77
SI1_1	.84
AVE	.45
CR	.74
Symbolism	.71
SY1_3	.77
SY1_2	.70
SY1_1	.70
AVE	.47
CR	.77
Self Authenticity	.69
SA1_5	.54
SA1_4	.74
SA1_3	.82
SA1_2	.81
SA1_1	.77
AVE	.43
CR	.93
Quality Commitment	.67
QC1_6	.67
QC1_3	.70
QC1_2	.74
AVE	.45
CR	.75
Originality	.68
OY1_5	.65
OY1_4	.64
OY1_3	.49
OY1_2	.58
OY1_1	.43
AVE	.41
CR	.69
Origin	.70
ON1_4	.66
ON1_3	.47
ON1_2	.64
ON1_1	.68
AVE	.41
CR	.71
Nostalgia	.72
NO1_6	.64
NO1_5	.44

NO1_4	.70
NO1_3	.76
NO1_2	.77
NO1_1	.79
AVE	.34
CR	.81
Integrity	.76
IN1_5	.59
IN1_4	.51
IN1_3	.51
IN1_2	.60
IN1_1	.68
AVE	.47
CR	.76
Heritage	.72
HE1_5	.52
HE1_4	.44
HE1_3	.56
HE1_2	.51
HE1_1	.59
AVE	.39
CR	.65
Genuineness	.60
GE1_4	.61
GE1_3	.56
GE1_2	.72
GE1_1	.60
AVE	.62
CR	.72
Design	.69
DE1_5	.47
DE1_4	.48
DE1_3	.5
DE1_2	.54
AVE	.40
CR	.57
Corporate Social Responsibility	.74
CS1_5	.49
CS1_4	.63
CS1_3	.71
CS1_2	.61
CS1_1	.72
AVE	.44
CR	.77
Credibility	.72
CR1_4	.70
CR1_3	.75
CR1_2	.70
CR1_1	.70
AVE	.41
CR	.70

Craftsmanship	.58
CP1_3	.19
CP1_2	.95
CP1_1	.77
AVE	.46
CR	.71
Continuity	.78
CO1_4	.65
CO1_3	.66
CO1_2	.33
CO1_1	.22
AVE	.41
CR	.54
Chi-square	3948.62
Degrees of freedom	1785.0
Probability level	0
GFI	.88
RMR	.80
RMSEA	.05
TLI	.82
NFI	.81
AGFI	.88
CFI	.87

APPENDIX O

Second factor model composite reliability and average variance extracted

Average Variance Extracted and Composite Reliability		
Item	MODEL 01	MODEL 02
Sincerity	Loading	Loading
SI01_3	0.455	0.665
SI01_2	0.766	0.766
SI01_1	0.837	0.837
AVE	0.4480933434	0.576516666666667
CR	0.737737967543713	0.801933936716766
Symbolism		
SY01_3	0.767	0.767
SY01_2	0.704	0.704
SY01_1	0.703	0.703
AVE	0.4734342	0.526038
CR	0.768729906596476	0.768729906596476
Self Authenticity		
SA01_5	0.539	-
SA01_4	0.744	0.844
SA01_3	0.819	0.819
SA01_2	0.806	0.816
SA01_1	0.767	0.809
AVE	0.4343	0.4977745
CR	0.925236791083391	0.914643388754811
Quality Commitment		
QC01_6	0.671	0.771
QC01_3	0.7	0.7
QC01_2	0.74	0.74
AVE	0.4463523	0.544013666666667
CR	0.746642528751039	0.781353252947344
Originality		
OY01_5	0.654	0.789
OY01_4	0.638	0.881
OY01_3	0.489	0.689
OY01_2	0.575	0.687
OY01_1	0.431	-
AVE	0.41335	0.586343
CR	0.694935860834052	0.848653915247627
Origin		
ON01_4	0.662	0.761
ON01_3	0.467	0.767
ON01_2	0.642	0.742
ON01_1	0.68	0.866
AVE	0.4123588	0.6169825
CR	0.70871210583986	0.865212589272785
Nostalgia		
NO01_6	0.64	0.871
NO01_5	0.443	0.844
NO01_4	0.697	0.876
NO01_3	0.761	0.861
NO01_2	0.768	0.868
NO01_1	0.794	0.889

AVE	0.3371114	0.5087403333333333
CR	0.807554516936622	0.96625654587392
Integrity		
IN01_5	0.589	0.789
IN01_4	0.507	0.815
IN01_3	0.511	0.781
IN01_2	0.603	0.813
IN01_1	0.678	0.768
AVE	0.4707315	0.5049958
CR	0.758294624796381	0.914263786056142
Heritage		
HE01_5	0.516	0.781
HE01_4	0.439	0.901
HE01_3	0.56	0.881
HE01_2	0.512	0.881
HE01_1	0.592	0.852
AVE	0.3925925	0.7399976
CR	0.654876524444967	0.934195359418592
Genuineness		
GE01_4	0.613	-
GE01_3	0.562	-
GE01_2	0.715	-
GE01_1	0.595	-
AVE	6227452,00	
CR	0.716519566014981	
Design		
DE01_5	0.469	0.771
DE01_4	0.476	0.776
DE01_3	0.5	0.734
DE01_2	0.544	0.755
AVE	0.3969892	0.5763495
CR	0.568110421434283	0.84470144424004
Corporate Social Responsibility		
CS01_5	0.488	0.778
CS01_4	0.631	0.731
CS01_3	0.705	0.755
CS01_2	0.605	0.705
CS01_1	0.718	0.718
AVE	0.43957776	0.5444438
CR	0.768392929326629	0.856488351946068
Credibility		
CR01_4	0.701	0.741
CR01_3	0.748	0.748
CR01_2	0.701	0.791
CR01_1	0.698	0.718
AVE	0.411804	0.5624475
CR	0.704545789088511	0.837011070928555
Craftmanship		
CP01_3	0.194	-
CP01_2	0.953	0.891
CP01_1	0.766	0.953
AVE	4597803,00	0.762948666666667
CR	0.713788149253126	0.90547255216958
Continuity		

CO01_4	0.652	0.841	
CO01_3	0.661	0.816	
CO01_2	0.328	0.863	
CO01_1	0.218	-	
AVE	0.4068532	0.7059686666666667	
CR	0.536731830473875	0.878037368575764	
Chi-square	3948623,00	2366555,00	
Degrees of freedom	1785,00	1183,00	
Probability level	0,00	0,00	
GFI	0.882		0.944
RMR	0.08	0.09	
RMSEA	0.052		0.042
TLI	0.823		0.934
NFI	0.812		0.894
AGFI	0.877	0.922	
CFI	0.866	0.9	

APPENDIX P

Brands comprised in the study an its oder of importance of authenticity dimensions by product category

Category	Entertainment	
Brand	Dimension	Order
Disney		
	Heritage	1
	Continuity	2
	Integrity	3
	Quality Commitment	4
	Credibility	5
	Design	6
	Originality	7
	Symbolism	8
	Origin	9
	Corporate Social Responsibility	10
	Nostalgia	11
	Sincerity	12
	Craftmanship	13
	Self Authenticity	14
Electronic Arts		
	Heritage	1
	Credibility	2
	Quality Commitment	3
	Continuity	4
	Integrity	5
	Design	6
	Sincerity	7
	Symbolism	8
	Originality	9
	Origin	10
	Craftmanship	11
	Corporate Social Responsibility	12
	Nostalgia	13
	Self Authenticity	14
NFL		
	Continuity	1
	Heritage	2
	Design	3
	Quality Commitment	4
	Origin	5
	Credibility	6
	Craftmanship	7
	Originality	8
	Corporate Social Responsibility	9
	Integrity	10
	Symbolism	11
	Nostalgia	12
	Sincerity	13
	Self Authenticity	14
Category	Food and Beverages	

Brand	Dimension	Order
<hr/>		
Hershey's	Integrity	1
	Sincerity	2
	Heritage	3
	Quality Commitment	4
	Continuity	5
	Credibility	6
	Originality	7
	Design	8
	Symbolism	9
	Nostalgia	10
	Craftmanship	11
	Self-Authenticity	12
	Corporate Social Responsibility	13
	Origin	14
<hr/>		
Nestlé	Continuity	1
	Heritage	2
	Credibility	3
	Quality Commitment	4
	Design	5
	Integrity	6
	Origin	7
	Originality	8
	Symbolism	9
	Sincerity	10
	Corporate Social Responsibility	11
	Craftmanship	12
	Nostalgia	13
	Self-Authenticity	14
<hr/>		
Nescafé	Continuity	1
	Credibility	2
	Heritage	3
	Quality Commitment	4
	Integrity	5
	Design	6
	Sincerity	7
	Symbolism	8
	Originality	9
	Craftmanship	10
	Corporate Social Responsibility	11
	Origin	12
	Nostalgia	13
	Self-Authenticity	14
<hr/>		
Heineken	Continuity	1
	Heritage	2
	Credibility	3
	Design	4
	Quality Commitment	5
	Integrity	6
	Sincerity	7
	Origin	8

	Originality	9
	Craftmanship	10
	Corporate Social Responsibility	11
	Symbolism	12
	Nostalgia	13
	Self-Authenticity	14
<hr/>		
Coca-Cola		
	Continuity	1
	Heritage	2
	Design	3
	Quality Commitment	4
	Credibility	5
	Integrity	6
	Originality	7
	Symbolism	8
	Corporate Social Responsibility	9
	Origin	10
	Nostalgia	11
	Sincerity	12
	Craftmanship	13
	Self-Authenticity	14
<hr/>		
Campari		
	Continuity	1
	Heritage	2
	Quality Commitment	3
	Credibility	4
	Design	5
	Origin	6
	Sincerity	7
	Integrity	8
	Craftmanship	9
	Originality	10
	Corporate Social Responsibility	11
	Nostalgia	12
	Symbolism	13
	Self-Authenticity	14
<hr/>		
Pepsi		
	Continuity	1
	Heritage	2
	Design	3
	Credibility	4
	Integrity	5
	Quality Commitment	6
	Sincerity	7
	Corporate Social Responsibility	8
	Origin	9
	Symbolism	10
	Originality	11
	Craftmanship	12
	Nostalgia	13
	Self-Authenticity	14
<hr/>		
Red Bull		
	Design	1
	Continuity	2
	Originality	3

	Heritage	4
	Quality Commitment	5
	Credibility	6
	Integrity	7
	Sincerity	8
	Origin	9
	Corporate Social Responsibility	10
	Symbolism	11
	Craftmanship	12
	Nostalgia	13
	Self-Authenticity	14
<hr/>		
Monster	Continuity	1
	Design	2
	Heritage	3
	Quality Commitment	4
	Credibility	5
	Integrity	6
	Sincerity	7
	Origin	8
	Originality	9
	Corporate Social Responsibility	10
	Nostalgia	11
	Craftmanship	12
	Symbolism	13
	Self-Authenticity	14
<hr/>		
Category	Hygiene and	
Brand	Beauty/Pharmaceutical	
Avon	Dimension	Order
	Integrity	1
	Sincerity	2
	Heritage	3
	Quality Commitment	4
	Continuity	5
	Credibility	6
	Originality	7
	Design	8
	Symbolism	9
	Nostalgia	10
	Craftmanship	11
	Self-Authenticity	12
	Corporate Social Responsibility	13
	Origin	14
<hr/>		
Lancôme	Quality Commitment	1
	Continuity	2
	Heritage	3
	Credibility	4
	Design	5
	Integrity	6
	Origin	7
	Sincerity	8
	Originality	9
	Self Authenticity	10

Johnson & Johnson	Symbolism	11
	Craftmanship	12
	Corporate Social Responsibility	13
	Nostalgia	14
Bayer	Heritage	1
	Continuity	2
	Quality Commitment	3
	Credibility	4
	Integrity	5
	Design	6
	Sincerity	7
	Symbolism	8
	Self-Authenticity	9
	Origin	10
	Originality	11
	Nostalgia	12
	Craftmanship	13
	Corporate Social Responsibility	14
Nivea	Heritage	1
	Continuity	2
	Credibility	3
	Quality Commitment	4
	Integrity	5
	Design	6
	Symbolism	7
	Corporate Social Responsibility	8
	Sincerity	9
	Originality	10
	Origin	11
	Craftmanship	12
	Nostalgia	13
	Self-Authenticity	14
Pfizer	Heritage	1
	Continuity	2
	Integrity	3
	Credibility	4
	Quality Commitment	5
	Sincerity	6
	Design	7
	Symbolism	8
	Self-Authenticity	9
	Corporate Social Responsibility	10
	Origin	11
	Craftmanship	12
	Nostalgia	13
	Originality	14
Pfizer	Integrity	1
	Sincerity	2
	Heritage	3
	Quality Commitment	4
	Continuity	5

	Credibility	6
	Originality	7
	Design	8
	Symbolism	9
	Self-Authenticity	10
	Nostalgia	11
	Craftmanship	12
	Corporate Social Responsibility	13
	Origin	14
Category	Industrial	
Brand	Dimension	Order
BMW		
	Continuity	1
	Heritage	2
	Quality Commitment	3
	Design	4
	Credibility	5
	Integrity	6
	Symbolism	7
	Originality	8
	Craftmanship	9
	Sincerity	10
	Origin	11
	Corporate Social Responsibility	12
	Self Authenticity	13
	Nostalgia	14
Honda		
	Heritage	1
	Continuity	2
	Integrity	3
	Credibility	4
	Quality Commitment	5
	Symbolism	6
	Design	7
	Sincerity	8
	Origin	9
	Corporate Social Responsibility	10
	Originality	11
	Craftmanship	12
	Nostalgia	13
	Self-Authenticity	14
Category	Apparel/Accessories	
Brand	Dimension	Average
Adidas		

	Continuity	1
	Heritage	2
	Credibility	3
	Quality Commitment	4
	Design	5
	Integrity	6
	Sincerity	7
	Originality	8
	Symbolism	9
	Origin	10
	Corporate Social Responsibility	11
	Craftmanship	12
	Nostalgia	13
	Self Authenticity	14
Nike		
	Heritage	1
	Continuity	2
	Credibility	3
	Quality Commitment	4
	Design	5
	Integrity	6
	Originality	7
	Symbolism	8
	Sincerity	9
	Corporate Social Responsibility	10
	Origin	11
	Craftmanship	12
	Nostalgia	13
	Self-Authenticity	14
Zara		
	Continuity	1
	Credibility	2
	Heritage	3
	Design	4
	Quality Commitment	5
	Integrity	6
	Originality	7
	Craftmanship	8
	Sincerity	9
	Origin	10
	Corporate Social Responsibility	11
	Symbolism	12
	Nostalgia	13

Ray Ban	Self-Authenticity	14
	Continuity	1
	Quality Commitment	2
	Heritage	3
	Credibility	4
	Design	5
	Integrity	6
	Sincerity	7
	Originality	8
	Craftmanship	9
	Origin	10
	Corporate Social Responsibility	11
	Symbolism	12
	Nostalgia	13
	Self-Authenticity	14
Category	Technology	
Brand	Dimension	Order
Google		
	Quality Commitment	1
	Credibility	2
	Continuity	3
	Symbolism	4
	Integrity	5
	Heritage	6
	Originality	7
	Design	8
	Corporate Social Responsibility	9
	Origin	10
	Sincerity	11
	Self Authenticity	12
	Nostalgia	13
	Craftmanship	14
Intel		
	Quality Commitment	1
	Credibility	2
	Heritage	3
	Continuity	4
	Integrity	5
	Originality	6
	Symbolism	7
	Design	8
	Sincerity	9

	Corporate Social Responsibility	10
	Origin	11
	Craftmanship	12
	Self-Authenticity	13
	Nostalgia	14
HP	Credibility	1
	Quality Commitment	2
	Heritage	3
	Continuity	4
	Integrity	5
	Symbolism	6
	Design	7
	Sincerity	8
	Originality	9
	Corporate Social Responsibility	10
	Origin	11
	Craftmanship	12
	Nostalgia	13
	Self-Authenticity	14
Amazon	Credibility	1
	Heritage	2
	Integrity	3
	Quality Commitment	4
	Continuity	5
	Originality	6
	Design	7
	Symbolism	8
	Sincerity	9
	Corporate Social Responsibility	10
	Origin	11
	Craftmanship	12
	Self-Authenticity	13
	Nostalgia	14
Sony	Integrity	1
	Sincerity	2
	Heritage	3
	Quality Commitment	4
	Continuity	5
	Credibility	6
	Originality	7

	Design	8
	Symbolism	9
	Nostalgia	10
	Craftmanship	11
	Self-Authenticity	12
	Corporate Social Responsibility	13
	Origin	14
Apple		
	Quality Commitment	1
	Heritage	2
	Design	3
	Originality	4
	Continuity	5
	Credibility	6
	Integrity	7
	Symbolism	8
	Sincerity	9
	Origin	10
	Corporate Social Responsibility	11
	Craftmanship	12
	Nostalgia	13
	Self-Authenticity	14
Facebook		
	Quality Commitment	1
	Symbolism	2
	Continuity	3
	Heritage	4
	Credibility	5
	Origin	6
	Design	7
	Originality	8
	Corporate Social Responsibility	9
	Nostalgia	10
	Integrity	11
	Sincerity	12
	Self-Authenticity	13
	Craftmanship	14
YouTube		
	Quality Commitment	1
	Continuity	2
	Originality	3
	Heritage	4
	Design	5

	Credibility	6
	Symbolism	7
	Integrity	8
	Sincerity	9
	Origin	10
	Corporate Social Responsibility	11
	Nostalgia	12
	Self-Authenticity	13
	Craftmanship	14
Nokia		
	Heritage	1
	Integrity	2
	Credibility	3
	Sincerity	4
	Quality Commitment	5
	Symbolism	6
	Nostalgia	7
	Continuity	8
	Originality	9
	Corporate Social Responsibility	10
	Origin	11
	Design	12
	Craftmanship	13
	Self-Authenticity	14
Yahoo		
	Heritage	1
	Integrity	2
	Continuity	3
	Sincerity	4
	Credibility	5
	Symbolism	6
	Origin	7
	Corporate Social Responsibility	8
	Quality Commitment	9
	Design	10
	Nostalgia	11
	Craftmanship	12
	Originality	13
	Self-Authenticity	14
Alibaba		
	Heritage	1
	Continuity	2
	Credibility	3

The Pirate Bay	Origin	4
	Symbolism	5
	Corporate Social Responsibility	6
	Integrity	7
	Sincerity	8
	Originality	9
	Quality Commitment	10
	Craftmanship	11
	Design	12
	Nostalgia	13
	Self Authenticity	14
	Originality	1
	Integrity	2
	Continuity	3
Category Brand Rolex	Heritage	4
	Sincerity	5
	Credibility	6
	Quality Commitment	7
	Design	8
	Symbolism	9
	Origin	10
	Corporate Social Responsibility	11
	Nostalgia	12
	Craftmanship	13
	Self-Authenticity	14
	Luxury	
	Dimension	Order
	Quality Commitment	1
	Continuity	2
	Heritage	3
	Credibility	4
	Design	5
	Craftmanship	6
	Originality	7
	Integrity	8
	Origin	9
	Symbolism	10
	Sincerity	11
	Corporate Social Responsibility	12
	Nostalgia	13

	Self-Authenticity	14
Hermés		
	Craftmanship	1
	Continuity	2
	Quality Commitment	3
	Heritage	4
	Design	5
	Credibility	6
	Origin	7
	Originality	8
	Integrity	9
	Corporate Social Responsibility	10
	Sincerity	11
	Symbolism	12
	Nostalgia	13
	Self-Authenticity	14
Louis Vuitton		
	Continuity	1
	Heritage	2
	Quality Commitment	3
	Design	4
	Craftmanship	5
	Credibility	6
	Integrity	7
	Originality	8
	Origin	9
	Sincerity	10
	Corporate Social Responsibility	11
	Symbolism	12
	Nostalgia	13
	Self-Authenticity	14
Category	Services	
Brand	Dimension	Order
Netflix		
	Quality Commitment	1
	Heritage	2
	Credibility	3
	Continuity	4
	Integrity	5
	Sincerity	6
	Originality	7
	Symbolism	8
	Design	9

	Corporate Social Responsibility	10
	Origin	11
	Nostalgia	12
	Self-Authenticity	13
	Craftmanship	14
Airbnb		
	Integrity	1
	Sincerity	2
	Heritage	3
	Quality Commitment	4
	Continuity	5
	Credibility	6
	Originality	7
	Design	8
	Symbolism	9
	Nostalgia	10
	Craftmanship	11
	Self Authenticity	12
	Corporate Social Responsibility	13
	Origin	14
Uber		
	Credibility	1
	Heritage	2
	Integrity	3
	Quality Commitment	4
	Continuity	5
	Originality	6
	Sincerity	7
	Symbolism	8
	Design	9
	Corporate Social Responsibility	10
	Origin	11
	Self-Authenticity	12
	Nostalgia	13
	Craftmanship	14

IRT Statistics					
Parameter	Discrimination (a)	Difficulty (b)	Guessing (c)	Chi-Square	Sig.
60					
Integrity	2.351	0.088	0	15.361	0.032
Sincerity	2.65	0.536	0	8.792	0.268
Heritage	2.685	-0.388	0	15.588	0.029
Quality Commitment	3.73	-0.202	0	13.595	0.059
Continuity	1.98	-0.372	0	10.544	0.16
Credibility	4.229	-0.148	0	17.669	0.014
Originality	2.702	0.268	0	17.802	0.013
Design	2.582	0.048	0	8.997	0.253
Symbolism	2.516	0.444	0.01	17.005	0.017
Nostalgia	1.948	0.946	0.024	20.165	0.005
Craftsmanship	1.904	1.112	0.004	14.133	0.049
Self Authenticity	3.035	1.119	0.002	10.115	0.182
Corporate Social Responsibility	2.71	0.883	0.004	9.184	0.24
Origin	2.338	0.921	0.025	19.734	0.006
AIC	16683.0				
BIC	16901.9				
70					
Integrity	2.634	0.524	0	14.22	0.047
Sincerity	2.605	1.137	0	10.798	0.148
Heritage	2.404	0.185	0	24.183	0.001
Quality Commitment	2.91	0.369	0	12.7	0.08
Continuity	1.754	0.342	0	36.936	0
Credibility	21.284	0.609	0.07	48.725	0
Originality	2.702	0.773	0	38.894	0
Design	2.49	0.627	0	59.363	0
Symbolism	2.732	0.853	0.025	24.532	0.001
Nostalgia	1.771	1.472	0.002	19.342	0.007
Craftsmanship	1.987	1.438	0	27.063	0
Self Authenticity	2.598	1.572	0	12.46	0.086
Corporate Social Responsibility	3.117	1.301	0.016	13.042	0.071
Origin	2.398	1.298	0.004	36.625	0
AIC	15565.4				
BIC	15784.2				
80					
Integrity	2.607	0.839	18.393	29.146	0
Sincerity	2.805	1.37	22.579	13.073	0.07
Heritage	2.137	0.601	13.24	25.937	0.001
Quality Commitment	3.099	0.616	16.116	22.59	0.002
Continuity	1.606	0.591	11.17	15.022	0.036
Credibility	4.164	0.639	18.668	15.927	0.026
Originality	2.874	1.032	21.671	26.422	0.095
Design	2.604	0.916	19.595	12.167	0.095
Symbolism	2.76	0.986	19.768	14.959	0.037
Nostalgia	1.808	1.633	17.674	20.249	0.005
Craftsmanship	2.339	1.507	20.955	10.334	0.17
Self Authenticity	3.01	1.745	21.488	15.005	0.036
Corporate Social Responsibility	2.876	1.486	22.716	13.66	0.058
Origin	2.392	1.37	21.364	10.831	0.146
AIC	13137.836				
BIC	13356.66				